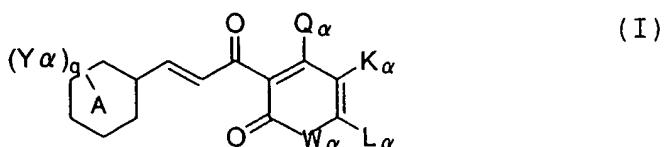


## Amendments to the Claims

1. (Original) A I type collagen gene transcription suppressing composition, which comprises a cinnamoyl compound represented by the formula (I):



[wherein

I. A represents a benzene ring or a pyridine ring, in  $(Y_\alpha)_q$ ,  $Y_\alpha$  is a substituent on a carbon atom, and represents a substituent of the following  $X_0$  group or  $Y_0$  group,  $q$  represents 0, 1, 2, 3, 4 or 5, when  $q$  is 2 or more,  $Y_\alpha$ 's are the same or different and, when  $q$  is 2 or more, the adjacent two same or different  $Y_\alpha$ 's constitute a group of a  $Z_0$  group, and may be fused with an A ring;

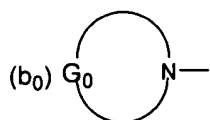
(1) a  $X_0$  group:

a  $M_a$ -group [ $M_a$  represents a  $R_b$ -group ( $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a  $R_c$ - $B_a$ - $R_d$ -group ( $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group,  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e$ -CO- $R_d$ -group ( $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e$ -CO-O- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_e$ O-CO- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a HO-CO-CH=CH-group, a  $R_eR_e'$ N- $R_d$ -group ( $R_e$  and  $R_e'$

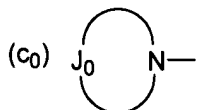
are the same or different,  $R_e$  is as defined above,  $R_e'$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_bO-CO-NR_e'-R_d$ -group ( $R_b$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_bO-CO-N(R_e)-R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'N-CO-R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_eR_e'N-CO-NR_e''-R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_e''$  are the same or different,  $R_e$  and  $R_e'$  are as defined above,  $R_e''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_eR_e'N-C(=NR_e'')-R_e'''-R_d$ -group ( $R_e$ ,  $R_e'$ ,  $R_e''$  and  $R_e'''$  are the same or different,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above,  $R_e'''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_b-SO_2-NR_e-R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'N-SO_2-R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group.];

(2) a  $Y_0$  group :

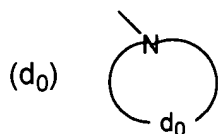
a  $M_{b0}-R_d$ -group [ $M_{b0}$  represents a  $M_{c0}$ -group ( $M_{c0}$  represents a  $M_{d0}-R_d'$ -group ( $M_{d0}$  represents a 6 to 10-membered aryl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or 5 to 10-membered heteroaryl group optionally substituted with  $M_a$  group ( $M_a$  is as defined above), or a 3 to 10-membered hydrocarbon ring or heterocycle optionally substituted with a  $M_a$ -group ( $M_a$  is defined above) and optionally containing an unsaturated bond, or



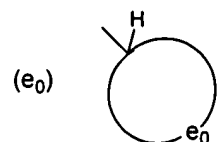
a (b<sub>0</sub>)-group (in (b<sub>0</sub>),  $G_0$  constitutes a saturated or unsaturated non-aromatic 5 to 14-membered hydrocarbon ring or heterocycle optionally having a substituent),



a (c<sub>0</sub>)-group (in (C<sub>0</sub>), J<sub>0</sub> may contain a nitrogen atom, and constitutes an aromatic 5 to 7-membered ring),



a (d<sub>0</sub>)-group {d<sub>0</sub> represents a 5 to 12-membered hydrocarbon ring substituted with carbonyl group or a thiocarbonyl group and, further, optionally substituted with an oxy group, a thio group, a -NR<sub>1</sub>-group (R<sub>1</sub> represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with halogen atom or a R<sub>2</sub>-B<sub>1</sub>-group (R<sub>2</sub> represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkenyl group, and B<sub>1</sub> represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkenyl group}, a sulfinyl group, or a sulfonyl group} or



an (e<sub>0</sub>)-group {e<sub>0</sub> constitutes a 5 to 12-membered hydrocarbon ring optionally substituted with a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a -NR<sub>1</sub>-group (R<sub>1</sub> is as defined above), a sulfinyl group or a sulfonyl group), R<sub>d</sub>' is the same as or different from R<sub>d</sub>, and has the same meaning as that of R<sub>d</sub>}}, a M<sub>c0</sub>-B<sub>a</sub>-group (M<sub>c0</sub> and B<sub>a</sub> are as defined above), a M<sub>c0</sub>-CO-group (M<sub>c0</sub> is as defined above), a M<sub>c0</sub>-CO-Ogroup (M<sub>c0</sub> is as defined above), a M<sub>c0</sub>O-CO-group (M<sub>c0</sub> is as defined above), a M<sub>c0</sub>R<sub>e</sub>N-group (M<sub>c0</sub> and R<sub>e</sub> are as

defined above), a  $M_{C0}$ -CO-NR<sub>e</sub>-group ( $M_{C0}$  and R<sub>e</sub> are as defined above), a  $M_{C0}O$ -CO-NR<sub>e</sub>-group ( $M_{C0}$  and R<sub>e</sub> are as defined above), a  $M_{C0}R_eN$ -CO-group ( $M_{C0}$  and R<sub>e</sub> are as defined above), a  $M_{C0}R_eN$ -CO-NR<sub>e'</sub>-group ( $M_{C0}$ , R<sub>e</sub> and R<sub>e'</sub> are as defined above), a  $M_{C0}R_eN$ -C(=NR<sub>e'</sub>)-NR<sub>e''</sub>-group ( $M_{C0}$ , R<sub>e</sub>, R<sub>e'</sub> and R<sub>e''</sub> are as defined above), a  $M_{C0}$ -SO<sub>2</sub>-NR<sub>e</sub>-group ( $M_{C0}$  and R<sub>e</sub> are as defined above) or  $M_{C0}R_eN$ -SO<sub>2</sub>-group ( $M_{C0}$  and R<sub>e</sub> are as defined above), and R<sub>d</sub> is as defined above.];

(3) a Z<sub>0</sub> group: a group which is a 5 to 12-membered hydrocarbon ring or heterocycle having a halogen atom, a C1-C10 alkoxy group, a C3-C10 alkenyloxy group, a C3-C10 alkynyloxy group, a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a sulfinyl group or a sulfonyl group, is an aromatic or non-aromatic monocyclic or fused ring, and is fused with an A ring;

II. Q<sub>α</sub> represents an optionally substituted hydroxyl group, or an optionally substituted amino group;

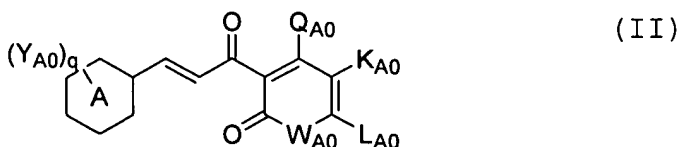
III. W<sub>α</sub> represents an oxygen atom or a-NT<sub>α</sub>-group (T<sub>α</sub> represents a hydrogen atom, or a substituent on a nitrogen atom.);

IV. K<sub>α</sub> and L<sub>α</sub> are the same or different, and represent a hydrogen atom, or a substituent on a carbon atom, or K<sub>α</sub> and L<sub>α</sub> may form a C1-C10 alkylene group optionally having a substituent or a C1-C10 alkenylene group optionally having a substituent; provided that when an A ring is a benzene ring, W<sub>α</sub> is an oxygen atom, L<sub>α</sub> is a methyl group, K<sub>α</sub> is a hydrogen atom, and Q<sub>α</sub> is a C1-C4 alkoxy group, a C3-C4 alkenyloxy group or a C3-C4 alkynyloxy group, then q is not 0 and, when an A ring is a benzene ring, W<sub>α</sub> is an oxygen atom, L<sub>α</sub> is a methyl group, K<sub>α</sub> is a hydrogen atom, and Q<sub>α</sub> is a C1-C4 alkoxy group, a C3-C4 alkenyloxy group or a C3-C4 alkynyloxy group, then q is 1, and Y<sub>α</sub> is not a halogen atom,

or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a nitro group, or a C1-C4 alkoxy group, or a RB-group (R represents a C1-C4 haloalkyl group, and B represents an oxy group or a thio group) and, when A is a benzene ring,  $W_\alpha$  is an oxygen atom,  $L_\alpha$  and  $K_\alpha$  form a 1,3-butadienylene group, and  $Q_\alpha$  is a methoxy group, then q is 1, and  $Y_\alpha$  is not a methoxy group or an ethoxy group and, when A is a benzene ring,  $W_\alpha$  is an oxygen atom,  $L_\alpha$  and  $K_\alpha$  form a 1,3-butadienylene group, and  $Q_\alpha$  is a hydroxyl group, then q is 1, and  $Y_\alpha$  is not an ethoxy group; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or the different as far as they are selected in the range]; and an inert carrier;

**2. (Original)** A I type collagen gene transcription suppressing composition, which comprises a cinnamoyl compound represented by the formula (II):



[wherein

I. A represents a benzene ring or pyridine ring;

II. In  $(Y_{A0})_q$ ,  $Y_{A0}$  is a substituent on a carbon atom, and represents a substituent of the following  $X_0$  group and  $Y_0$

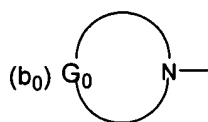
group,  $q$  represents 0, 1, 2, 3, 4 or 5, when  $q$  is 2 or more,  $Y_{A0}$ 's are the same or different and, when  $q$  is 2 or more, the adjacent two same or different  $Y_{A0}$ 's constitute a group of a  $Z_0$  group, and may be fused with an A ring;

(1) a  $X_0$  group:

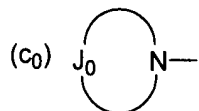
a  $M_a$ -group [ $M_a$  represents a  $R_b$  group ( $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxyl group, a  $R_c$ - $B_a$ - $R_d$ -group ( $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e$ -CO- $R_d$ -group ( $R_e$  represents hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e$ -CO-O- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_e$ O-CO- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a HO-CO-CH=CH-group, a  $R_eR_e'$ N- $R_d$ -group ( $R_e$  and  $R_e'$  are the same or different,  $R_e'$  has the same meaning as that of  $R_e$  and  $R_d$  is as defined above), a  $R_e$ -CO-N $R_e'$ - $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_b$ C-CO-N( $R_e$ )- $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'$ N-CO- $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_eR_e'$ N-CO-N $R_e''$ - $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_e''$  are the same or different,  $R_e$  and  $R_e'$  are as defined above,  $R_e''$  has the same meaning as that of  $R_e$  and  $R_d$  is as defined above), a  $R_eR_e'$ N-C(=N $R_e''$ )-N $R_e'''$ - $R_d$ -group ( $R_e$ ,  $R_e'$ ,  $R_e''$  and  $R_e'''$  are the same or different,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above,  $R_e'''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_b$ -SO<sub>2</sub>-N $R_e$ - $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'$ N-SO<sub>2</sub>- $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group.];

(2) a  $Y_0$  group:

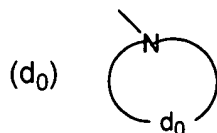
a  $M_{b0}$ - $R_d$ -group [ $M_{b0}$  represents a  $M_{c0}$  group ( $M_{c0}$  represents a  $M_{d0}$ - $R_d'$ -group ( $M_{d0}$  represents a 6 to 10-membered aryl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a 5 to 10-membered heteroaryl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), a 3 to 10-membered hydrocarbon ring or heterocycle optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above) and optionally containing an unsaturated bond, or



a (b<sub>0</sub>)-group (in (b<sub>0</sub>),  $G_0$  constitutes a saturated or unsaturated non-aromatic 5 to 14-membered hydrocarbon ring or heterocycle optionally having a substituent),

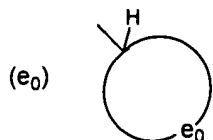


a (c<sub>0</sub>)-group (in (c<sub>0</sub>),  $J_0$  may contain a nitrogen atom, and constitutes an aromatic 5 to 7-membered ring),



a (d<sub>0</sub>)-group ( $d_0$  constitutes a 5 to 12-membered hydrocarbon ring substituted with a carbonyl group or a thiocarbonyl group and, further, optionally substituted with an oxy group, a thio group, a  $-NR_1$ -group ( $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2$ - $B_1$ -group ( $R_2$  represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and a  $B_1$  represents an oxy group, a thio group, a sulfinyl group or sulfonyl group), or a C3-

C10 alkenyl group, or a C3-C10 alkynyl group}, a sulfinyl group or a sulfonyl group} or



an (e<sub>0</sub>)-group {e<sub>0</sub> represents a 5 to 12-membered hydrocarbon ring optionally substituted with a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a -NR<sub>1</sub>-group (R<sub>1</sub> is as defined above), a sulfinyl group or a sulfonyl group}, R<sub>d</sub>' is the same as or different from R<sub>d</sub>, and has the same meaning as that of R<sub>d</sub>}}, a M<sub>c0</sub>-B<sub>a</sub>-group (M<sub>c0</sub> and B<sub>a</sub> are as defined above), a M<sub>c0</sub>-CO-group (M<sub>c0</sub> is as defined above), a M<sub>c0</sub>-CO-O-group (M<sub>c0</sub> is as defined above), a M<sub>c0</sub>O-CO-group (M<sub>c0</sub> is as defined above), a M<sub>c0</sub>R<sub>e</sub>N-group (M<sub>c0</sub> and R<sub>e</sub> are as defined above), a M<sub>c0</sub>-CO-NR<sub>e</sub>-group (M<sub>c0</sub> and R<sub>e</sub> are as defined above), a M<sub>c0</sub>O-CO-NR<sub>e</sub>-group (M<sub>c0</sub> and R<sub>e</sub> are as defined above), a M<sub>c0</sub>R<sub>e</sub>N-CO-group (M<sub>c0</sub> and R<sub>e</sub> are as defined above), a M<sub>c0</sub>R<sub>e</sub>N-CO-NR<sub>e</sub>'-group (M<sub>c0</sub>, R<sub>e</sub> and R<sub>e</sub>' are as defined above), a M<sub>c0</sub>R<sub>e</sub>N-C(=NR<sub>e</sub>')-NR<sub>e</sub>''-group (M<sub>c0</sub>, R<sub>e</sub>, R<sub>e</sub>' and R<sub>e</sub>'' are as defined above), a M<sub>c0</sub>-SO<sub>2</sub>-NR<sub>e</sub>-group (M<sub>c0</sub> and R<sub>e</sub> are as defined above) or M<sub>c0</sub>R<sub>e</sub>N-SO<sub>2</sub>-group (M<sub>c0</sub> and R<sub>e</sub> are as defined above), and R<sub>d</sub> is as defined above.];

(3) a Z<sub>0</sub> group: a group which is a 5 to 12-membered hydrocarbon ring or heterocycle ring optionally having a halogen atom, a C1-C10 alkoxy group, a C3-C10 alkenyloxy group, a C3-C10 alkynyloxy group, a carbonyl group, a thiocarbonyl group, an oxy group, a thio group, a sulfinyl group or a sulfonyl group, is an aromatic or non-aromatic monocyclic or fused ring, and is fused with an A ring;

III. Q<sub>A0</sub> represents a hydroxyl group, a (b<sub>0</sub>)-group ((b<sub>0</sub>) is as defined above), an A<sub>9</sub>-B<sub>6</sub>-B<sub>c</sub>-group [A<sub>9</sub> represents a substituent of the following A<sub>7</sub> group or A<sub>8</sub> group, B<sub>6</sub>



represents a carbonyl group or a thiocarbonyl group, and  $B_c$  represents an oxy group or a  $-N((O)_mR_1)$ -group ( $m$  represents 0 or 1, and  $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2-B_1$ -group ( $R_2$  represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and  $B_1$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}), provided that when  $A_9$  is a hydrogen atom, then  $B_c$  is not a sulfonyl group], an  $A_7''$ -SO<sub>2</sub>- $B_c$ -group ( $A_7''$  represents a substituent of the following  $A_7''$  group, and  $B_c$  is as defined above), an  $A_8$ -SO<sub>2</sub>- $B_c$ -group ( $A_8$  represents a substituent of the following  $A_8$  group, and  $B_c$  is as defined above, provided that  $A_8$  is not a hydrogen atom), a  $R_1R_1'$ -N-SO<sub>2</sub>- $B_c$ -group ( $R_1$  is as defined above,  $R_1'$  and  $R_1$  are the same or different, and has the same meaning as that of  $R_1$ , and  $B_c$  is as defined above), a  $(b_0)$ -SO<sub>2</sub>- $B_c$ -group ( $(b_0)$  and  $B_c$  are as defined above), an  $A_9'$ - $B_c$ -group ( $A_9'$  represents a substituent of the following  $A_7'$  group or  $A_8'$  group, and  $B_c$  is as defined above), a  $D_5$ - $R_4$ - $B_c$ -group ( $D_5$  represents a substituent of the following  $D_5$  group,  $R_4$  represents a C1-C10 alkylene group, and  $B_c$  is as defined above), a  $M_{c0}$ - $B_3$ - $B_c$ -group ( $B_3$  represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and  $M_{c0}$  and  $B_c$  are as defined above) or a  $M_{c0}$ - $B_c$ -group ( $M_{c0}$  and  $B_c$  are as defined above);

(1) an  $A_7$  group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a  $R_2-B_1-R_4$ -group ( $R_2$  and  $B_1$  are as defined above, and  $R_4$  is as defined above), a  $D_4$ - $R_4$ -group ( $D_4$  represents a substituent of the following  $D_4$  group, and  $R_4$  is as defined above), a  $D_5$ - $R_4$ -group ( $D_5$  represents a substituent of the

following D<sub>5</sub> group, and R<sub>4</sub> is as defined above), a D<sub>1</sub>-R<sub>4</sub>-group {D<sub>1</sub> represents a substituent of the following D<sub>1</sub>-group, and R<sub>4</sub> is as defined above}, a (b<sub>0</sub>)-R<sub>4</sub>-group ((b<sub>0</sub>) is as defined above, and R<sub>4</sub> is as defined above), a (c<sub>0</sub>)-R<sub>4</sub>-group ((c<sub>0</sub>) is as defined above, and R<sub>4</sub> is as defined above), a D<sub>2</sub>-R<sub>4</sub>-group {D<sub>2</sub> represents a substituent of the following D<sub>2</sub> group, and R<sub>4</sub> is as defined above}, a D<sub>3</sub>-R<sub>4</sub>-group {D<sub>3</sub> represents a substituent of the following D<sub>3</sub> group, and R<sub>4</sub> is as defined above}, an A<sub>4</sub>-SO<sub>2</sub>-R<sub>4</sub>-group {A<sub>4</sub> represents a (b<sub>0</sub>)-group ((b<sub>0</sub>) is as defined above), a (c<sub>0</sub>)-group ((c<sub>0</sub>) is as defined above) or a R<sub>1</sub>R<sub>1</sub>'N-group (R<sub>1</sub> and R<sub>1</sub>' are as defined above), and R<sub>4</sub> is as defined above} or an A<sub>2</sub>-CO-R<sub>4</sub>-group (A<sub>2</sub> represents a substituent of the following A<sub>2</sub> group, and R<sub>4</sub> is as defined above);

(2) an A<sub>8</sub> group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;

(3) an A<sub>7</sub>' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>'-group (R<sub>2</sub> and B<sub>1</sub> are as defined above, and R<sub>4</sub>' represents a C2-C10 alkylene group), a D<sub>4</sub>-R<sub>4</sub>'-group (D<sub>4</sub> and R<sub>4</sub>' are as defined above), a D<sub>1</sub>-R<sub>4</sub>'-group (D<sub>1</sub> and R<sub>4</sub>' are as defined above), a (b<sub>0</sub>)-R<sub>4</sub>'-group ((b<sub>0</sub>) and R<sub>4</sub>' are as defined above), a (c<sub>0</sub>)-R<sub>4</sub>'-group ((c<sub>0</sub>) and R<sub>4</sub>' are as defined above), a D<sub>2</sub>-R<sub>4</sub>-group (D<sub>2</sub> and R<sub>4</sub> are as defined above), a D<sub>3</sub>-R<sub>4</sub>'-group (D<sub>3</sub> and R<sub>4</sub>' are as defined above) or an A<sub>2</sub>-CO-R<sub>4</sub>-group (A<sub>2</sub> and R<sub>4</sub> are as defined above);

(4) an A<sub>8</sub>' group: a C1-C10 alkyl group or C2-C10 haloalkyl group;

(5) an A<sub>7</sub>'' group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R<sub>2</sub>-B<sub>1</sub>-

$R_4'$ -group ( $R_2$ ,  $B_1$  and  $R_4'$  are as defined above), a  $D_4$ - $R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_5$ - $R_4$ -group ( $D_5$  and  $R_4$  are as defined above), a  $D_1$ - $R_4'$ -group ( $D_1$  and  $R_4'$  are as defined above), a  $(b_0)$ - $R_4'$ -group ( $(b_0)$  and  $R_4'$  are as defined above), a  $(c_0)$ - $R_4'$ -group ( $(c_0)$  and  $R_4'$  are as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  and  $R_4$  are as defined above), a  $NO_2$ - $R_4$ -group ( $R_4$  is as defined above) or an  $A_2$ -CO- $R_4$ -group ( $A_2$  and  $R_4$  are as defined above);

(i) a  $D_4$ -group: a hydroxy group or an  $A_1$ -O-group [ $A_1$  represents a  $R_3$ -(CHR<sub>0</sub>)<sub>m</sub>-(B<sub>2</sub>-B<sub>3</sub>)-<sub>m'</sub>-group ( $R_3$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a  $R_2$ -B<sub>1</sub>-group ( $R_2$  and  $B_1$  are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group,  $R_0$  represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group,  $m$  is as defined above,  $B_2$  represents a single bond, an oxy group, a thio group or a -N((O)<sub>n</sub>R<sub>1'</sub>)-group ( $R_1'$  is as defined above, and  $n$  represents 0 or 1),  $B_3$  is as defined above,  $m'$  represents 0 or 1 and, when  $B_3$  is a sulfonyl group, then  $m$  is 0, and  $R_3$  is not a hydrogen atom)];

(ii) a  $D_5$  group: an O=C( $R_3$ )-group ( $R_3$  is as defined above), an  $A_1$ -(O)<sub>n</sub>-N=C( $R_3$ )-group ( $A_1$ ,  $n$  and  $R_3$  are as defined above), a  $R_1$ -B<sub>0</sub>-CO- $R_4$ -(O)<sub>n</sub>-N=C( $R_3$ )-group [ $R_1$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above, and  $B_0$  represents an oxy group, a thio group or a -N((O)<sub>m</sub>R<sub>1'</sub>)-group ( $R_1'$  and  $m$  are as defined above)], a  $D_2$ - $R_4$ -(O)<sub>n</sub>-N=C( $R_3$ )-group ( $D_2$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above) or a  $R_1A_1N$ -N=C( $R_3$ )-group ( $R_1$ ,  $A_1$  and  $R_3$  are as defined above);

(iii) a  $D_1$  group: a ( $R_1$ -(O)<sub>k</sub>-) $A_1N$ -(O)<sub>k'</sub>-group ( $R_1$  and  $A_1$  are as defined above, and  $k$  and  $k'$  are the same or different and represent 0 or 1);

(iv) a  $D_2$  group: a cyano group, a  $R_1R_1'NC(=N-(O)_n-A_1)$ -group ( $R_1$ ,  $R_1'$ ,  $n$  and  $A_1$  are as defined above), an  $A_1N=C(-OR_2)$ -group ( $A_1$  and  $R_2$  are as defined above) or a  $NH_2-CS$ -group;

(v) a  $D_3$  group: a nitro group or a  $R_1OSO_2$ -group ( $R_1$  is as defined above);

(vi) an  $A_2$  group:

1) an  $A_3-B_4$ -group

[ $A_3$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a  $R_a-(R_4)_m$ -group ( $R_a$  represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group,  $R_4$  and  $m$  are as defined above), or a C1-C10 alkyl group substituted with a  $(b_0)-R_4$ -group ( $(b_0)$  and  $R_4$  are as defined above), a  $((c_0)-R_4$ -group ( $(c_0)$  and  $R_4$  are as defined above), a  $R_2-B_1-R_4$ -group ( $R_2$ ,  $B_1$  and  $R_4$  are as defined above), a  $D_4-R_4$ -group ( $D_4$  and  $R_4$  are as defined above), a  $D_5$ -group ( $D_5$  is as defined above), a  $D_1-R_4$ -group ( $D_1$  and  $R_4$  are as defined above), a  $D_2$ -group ( $D_2$  is as defined above), a  $D_3-R_4$ -group ( $D_3$  and  $R_4$  are as defined above) or an  $R_4-SO_2-R_4$ -group ( $A_4$  is as defined above, and  $R_4$  is as defined above);

$B_4$  represents an oxy group, a thio group or a  $-N((O)_mR_1)$ group ( $R_1$  and  $m$  are as defined above), provided that when  $B_4$  is a thio group, then  $A_3$  is not a hydrogen atom.];

2) a  $R_1-B_4-CO-R_4-B_4'$ -group ( $R_1$ ,  $B_4$  and  $R_4$  are as defined above,  $B_4'$  is the same as or different from  $B_4$ , and has the same meaning as that of  $B_4$ , provided that when  $B_4$  is a thio

group, then  $R_2$  is not hydrogen atom) or a  $D_2-R_4-B_4$ -group ( $D_2$ ,  $R_4$  and  $B_4$  are as defined above);

3) a  $R_2-SO_2-NR_1$ -group ( $R_2$  is as defined above, provided that a hydrogen atom is excluded;  $R_1$  is as defined above);

4) a  $(b_0)$ -group ( $(b_0)$  is as defined above);

5) a  $(c_0)$ -group ( $(c_0)$  is as defined above); or

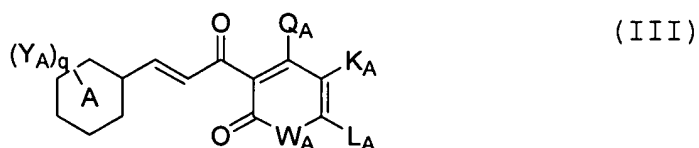
6) a  $R_1-A_1N-NR_1'$ -group ( $R_1$ ,  $A_1$  and  $R_1'$  are as defined above);

IV.  $W_{A0}$  represents an oxygen atom or a  $-NT_{A0}$ -group [ $T_{A0}$  represents a hydrogen atom, an  $A_9'$  group ( $A_9'$  is as defined above), a  $D_5-R_4$ -group ( $D_5$  and  $R_4$  are as defined above) or a  $M_{C0}$ -group ( $M_{C0}$  is as defined above)];

V.  $K_{A0}$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group,  $L_{A0}$  represents a hydrogen atom, a C1-C10 alkyl group or a  $M_{b0}$ -group ( $M_{b0}$  is as defined above), or  $K_{A0}$  and  $L_{A0}$  may form a C1-C10 alkylene group, or a C1-C10 alkenylene group optionally substituted with single or the same or different plural  $M_a$  groups, provided that when an A ring is a benzene ring,  $W_{A0}$  is an oxygen atom,  $L_{A0}$  is a methyl group,  $K_{A0}$  is a hydrogen atom, and  $Q_{A0}$  is a C1-C4 alkoxy group, a C3-C4 alkenyloxy group or a C3-C4 alkynyloxy group, then  $q$  is not 0 and, when an A ring is a benzene ring,  $W_{A0}$  is an oxygen atom,  $L_{A0}$  is a methyl group,  $K_{A0}$  is a hydrogen atom, and  $Q_{A0}$  is a C1-C4 alkoxy group, a C3-C4 alkenyloxy group or a C3-C4 alkynyloxy group, then  $q$  is 1, and  $Y_{A0}$  is not a halogen atom, or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a nitro group, or a C1-C4 alkoxy group, or a RB-group (R represents a C1-C4 haloalkyl group, and B represents an oxy group or a thio group) and, when A is a benzene ring,  $W_{A0}$  is an oxygen atom,  $L_{A0}$  and  $K_{A0}$  form a 1,3-butadienylene group, and  $Q_{A0}$  is a methoxy group,  $q$  is 1, and  $Y_{A0}$  is not a methoxy group or an ethoxy group and, when A is

a benzene ring,  $W_{A0}$  is an oxygen atom,  $L_{A0}$  and  $K_{A0}$  form a 1,3-butadienylene group, and  $Q_{A0}$  is a hydroxy group, then  $q$  is 1, and  $Y_{A0}$  is not an ethoxy group; and the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of the substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or the different as far as they are selected in the range]; and an inert carrier;

**3. (Original)** A I type collagen gene transcription suppressing composition, which comprises a cinnamoyl compound represented by the formula (III):

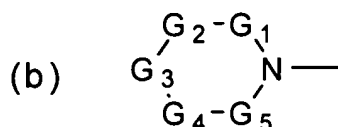


[wherein

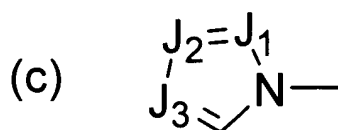
- I. A represents a benzene ring or a pyridine ring;
- II. In  $(Y_A)_q$ ,  $Y_A$  is a substituent on a carbon atom, and represents a substituent of the following X group or Y group,  $q$  represents 0, 1, 2, 3, 4 or 5, when  $q$  is 2 or more,  $Y_A$ 's are the same or the different and, when  $q$  is 2 or more, the adjacent two same or different  $Y_A$ 's constitute a group of a Z group, and may be fused with an A ring;
- (1) a X group: a  $M_a$ -group [ $M_a$  represents a  $R_b$ -group ( $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a  $R_c$ - $B_a$ - $R_d$ -group ( $R_c$  represents a C1-

C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e-CO-R_d$ -group ( $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e-CO-O-R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_eO-CO-R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $HO-CO-CH=CH$ -group, a  $R_eR_{e'}N-R_d$ -group ( $R_e$  and  $R_{e'}$  are the same or different,  $R_e$  is as defined above,  $R_{e'}$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e-CO-NR_{e'}-R_d$ -group ( $R_e$ ,  $R_{e'}$ - $R_d$  are as defined above), a  $R_bO-CO-N(R_e)-R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_{e'}N-CO-R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a  $R_eR_{e'}N-CO-NR_{e''}-R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_{e''}$  are the same or different,  $R_e$  and  $R_{e'}$  are as defined above,  $R_{e''}$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_eR_{e'}N-C(=NR_{e''})-NR_{e'''}-R_d$ -group ( $R_e$ ,  $R_{e'}$ ,  $R_{e''}$  and  $R_{e'''}$  are the same or different,  $R_e$ ,  $R_{e'}$  and  $R_{e''}$  are as defined above,  $R_{e'''}$  has the same meaning as that of  $R_e$  and  $R_d$  is as defined above), a  $R_b-SO_2-NR_e-R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above),  $R_eR_{e'}N-SO_2-R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group];

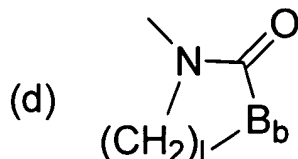
(2) a Y group: a  $M_b-R_d$ -group [ $M_b$  represents a  $M_c$ -group ( $M_c$  represents a  $M_d-R_d'$ -group ( $M_d$  represents a phenyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a pyridyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a naphthyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or



a (b)-group {in (b),  $G_1$ ,  $G_2$ ,  $G_4$  and  $G_5$  represent a methylene group which is connected to an adjacent atom with a single bond and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond,  $G_3$  represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2$ - $B_1$ -group ( $R_2$  represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and  $B_1$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  is as defined above)},

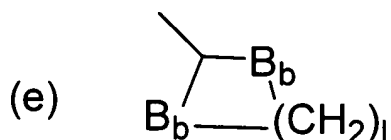


a (c)-group (in (c),  $J_1$ ,  $J_2$  and  $J_3$  are the same or different, and represent a methine group optionally substituted with a methine group, or a nitrogen atom),





a (d)-group (l is 2, 3 or 4, and B<sub>b</sub> represents an oxy group or a thio group) or



an (e)-group (l and B<sub>b</sub> are as defined above), R<sub>d</sub>' is the same as or different from R<sub>d</sub>, and has the same meaning as that of R<sub>d</sub>}}, a M<sub>c</sub>-B<sub>a</sub>-group (M<sub>c</sub> and B<sub>a</sub> are as defined above), a M<sub>c</sub>-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>-CO-O-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>O-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>R<sub>e</sub>N-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>O-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-NR<sub>e</sub>'-group (M<sub>c</sub>, R<sub>e</sub> and R<sub>e</sub>' are as defined above), a M<sub>c</sub>R<sub>e</sub>N-C(=NR<sub>e</sub>')-NR<sub>e</sub>''-group (M<sub>c</sub>, R<sub>e</sub>, R<sub>e</sub>' and R<sub>e</sub>'' are as defined above), a M<sub>c</sub>-SO<sub>2</sub>-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above) or a M<sub>c</sub>R<sub>e</sub>N-SO<sub>2</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), and R<sub>d</sub> is as defined above];

(3) a Z group: a -N=C(Y<sub>a</sub>)-Y<sub>a</sub>'-group (Y<sub>a</sub> represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, Y<sub>a</sub>' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a -Y<sub>b</sub>-Y<sub>b</sub>'-Y<sub>b</sub>''-group (Y<sub>b</sub> and Y<sub>b</sub>'' are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y<sub>b</sub>' represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a -Y<sub>c</sub>-O-Y<sub>c</sub>'-O-group (Y<sub>c</sub> and Y<sub>c</sub>' are the same or different, and represent a C1-C10 alkylene group);

III.  $Q_A$  represents a hydroxyl group, a (b)-group ((b) is as defined above), an  $A_9-B_6-B_c$ -group [ $A_9$  represents a substituent of the following  $A_7$  group or  $A_8$  group,  $B_6$  represents a carbonyl group or a thiocarbonyl group,  $B_c$  represents an oxy group or a  $-N((O)_mR_1)$ -group ( $m$  represents 0 or 1, and  $R_1$  is as defined above), provided that when  $A_9$  is a hydrogen atom,  $B_c$  is not a sulfonyl group], an  $A_7''-SO_2-B_c$ -group ( $A_7''$  represents a substituent of the following  $A_7''$  group, and  $B_c$  is as defined above), an  $A_8-SO_2-B_c$ -group ( $A_8$  represents a substituent of the following  $A_8$  group,  $B_c$  is as defined above, provided that  $A_8$  is not a hydrogen atom), a  $R_1R_1'N-SO_2-B_c$ -group ( $R_1$  is as defined above,  $R_1'$  is the same as or different from  $R_1$ , and has the same meaning as that of  $R_1$ , and  $B_c$  is as defined above), a (b)- $SO_2-B_c$ -group ((b) and  $B_c$  are as defined above), an  $A_9'-B_c$ -group ( $A_9'$  represents a substituent of the following  $A_7'$  group or  $A_8'$  group, and  $B_c$  is as defined above), a  $D_5-R_4-B_c$ -group ( $D_5$  represents a substituent of the following  $D_5$  group,  $R_4$  represents a C1-C10 alkylene group, and  $B_c$  is as defined above), a  $M_c-B_3-B_c$ -group ( $B_3$  represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and  $M_c$  and  $B_c$  are as defined above) or a  $M_c-B_c$ -group ( $M_c$  and  $B_c$  are as defined above);

(1) an  $A_7$  group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a  $R_2-B_1-R_4$ -group ( $R_2$  and  $B_1$  are as defined above, and  $R_4$  is as defined above), a  $D_4-R_4$ -group ( $D_4$  represents a substituent of the following  $D_4$  group, and  $R_4$  is as defined above), a  $D_5-R_4$ -group ( $D_5$  represents a substituent of the following  $D_5$  group, and  $R_4$  is as defined above), a  $D_1-R_4$ -group ( $D_1$  represents a substituent of the following  $D_1$  group, and  $R_4$  is as defined above), a (b)- $R_4$ -group ((b) is

as defined above, and  $R_4$  is as defined above), a (c)- $R_4$ -group ((c) is as defined above, and  $R_4$  is as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  represents a substituent of the following  $D_2$  group, and  $R_4$  is as defined above), a  $D_3$ - $R_4$ -group ( $D_3$  represents a substituent of the following  $D_3$  group, and  $R_4$  is as defined above), an  $A_4$ -SO<sub>2</sub>- $R_4$ -group ( $A_4$  represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a  $R_1R_1'$ -N-group ( $R_1$  and  $R_1'$  are as defined above), and  $R_4$  is as defined above} or an  $A_2$ -CO- $R_4$ -group ( $A_2$  represents a substituent of the following  $A_2$  group, and  $R_4$  is as defined above);

(2) an  $A_8$  group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;

(3) an  $A_{7'}$  group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a  $R_2$ - $B_1$ - $R_4'$ -group ( $R_2$  and  $B_1$  are as defined above, and  $R_4'$  represents a C2-C10 alkylene group), a  $D_4$ - $R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_1$ - $R_4'$ -group ( $D_1$  and  $R_4'$  are as defined above), a (b)- $R_4'$ -group ((b) and  $R_4'$  are as defined above), a (c)- $R_4'$ -group ((c) and  $R_4'$  are as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  and  $R_4$  are as defined above), a  $D_3$ - $R_4'$ -group ( $D_3$  and  $R_4'$  are as defined above) or an  $A_2$ -CO- $R_4$ -group ( $A_2$  and  $R_4$  are as defined above);

(4) an  $A_8'$  group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;

(5) an  $A_{7''}$  group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a  $R_2$ - $B_1$ - $R_4'$ -group ( $R_2$ ,  $B_1$  and  $R_4'$  are as defined above), a  $D_4$ - $R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_5$ - $R_4$ -group ( $D_5$  and  $R_4$  are as defined above), a  $D_1$ - $R_4'$ -group ( $D_1$  and  $R_4'$  are

as defined above), a (b)-R<sub>4</sub>'-group ((b) and R<sub>4</sub>' are as defined above), a (c)-R<sub>4</sub>'-group ((c) and R<sub>4</sub>' are as defined above), a D<sub>2</sub>-R<sub>4</sub>-group (D<sub>2</sub> and R<sub>4</sub> are as defined above), a NO<sub>2</sub>-R<sub>4</sub>-group (R<sub>4</sub> is as defined above) or an A<sub>2</sub>-CO-R<sub>4</sub>-group (A<sub>2</sub> and R<sub>4</sub> are as defined above);

(i) a D<sub>4</sub> group: a hydroxyl group or an A<sub>1</sub>-O-group [A<sub>1</sub> represents a R<sub>3</sub>-(CHR<sub>0</sub>)<sub>m</sub>-(B<sub>2</sub>-B<sub>3</sub>)<sub>m'</sub>-group {R<sub>3</sub> represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a R<sub>2</sub>-B<sub>1</sub>-group (R<sub>2</sub> and B<sub>1</sub> are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group, R<sub>0</sub> represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10haloalkyl group, m is as defined above, B<sub>2</sub> represents a single bond, an oxy group, a thio group or a -N(O)<sub>n</sub>R<sub>1</sub>'-group (R<sub>1</sub>' is as defined above, and n represents 0 or 1), B<sub>3</sub> is as defined above, m' represents 0 or 1 and, when B<sub>3</sub> is a sulfonyl group, m is 0, and R<sub>3</sub> is not a hydrogen atom}];

(ii) a D<sub>5</sub> group: O=C(R<sub>3</sub>)-group (R<sub>3</sub> is as defined above), an A<sub>1</sub>-(O)<sub>n</sub>-N=C(R<sub>3</sub>)-group (A<sub>1</sub>, n and R<sub>3</sub> are as defined above), a R<sub>1</sub>-B<sub>0</sub>-CO-R<sub>4</sub>-(O)<sub>n</sub>-N=C(R<sub>3</sub>)-group [R<sub>1</sub>, R<sub>4</sub>, n and R<sub>3</sub> are as defined above, and B<sub>0</sub> represents an oxy group, a thio group or a -N(O)<sub>m</sub>R<sub>1</sub>'-group (R<sub>1</sub>' and m are as defined above)], a D<sub>2</sub>-R<sub>4</sub>-(O)<sub>n</sub>-N=C(R<sub>3</sub>)-group (D<sub>2</sub>, R<sub>4</sub>, n and R<sub>3</sub> are as defined above) or a R<sub>1</sub>A<sub>1</sub>N-N=C(R<sub>3</sub>)-group (R<sub>1</sub>, A<sub>1</sub> and R<sub>3</sub> are as defined above);

(iii) a D<sub>1</sub> group: a (R<sub>1</sub>-(O)<sub>k</sub>-)A<sub>1</sub>N-(O)<sub>k'</sub>-group (R<sub>1</sub> and A<sub>1</sub> are as defined above, and k and k' are the same or different, and represent 0 or 1);

(iv) a D group: a cyano group, a R<sub>1</sub>R<sub>1</sub>'NC' (=N-(O)<sub>n</sub>-A<sub>1</sub>)-group (R<sub>1</sub>, R<sub>1</sub>', n and A<sub>1</sub> are as defined above), an A<sub>1</sub>N=C(-O-)group (A<sub>1</sub> and R<sub>2</sub> are as defined above) or a NH<sub>2</sub>-CS-group;

(v) a D<sub>3</sub> group: a nitro group or a R<sub>1</sub>OSO<sub>2</sub>-group (R<sub>1</sub> is as defined above);

(vi) an A<sub>2</sub> group:

1) an A<sub>3</sub>-B<sub>4</sub>-group

[A<sub>3</sub> represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a R<sub>a</sub>-(R<sub>4</sub>)<sub>m</sub>-group (R<sub>a</sub> represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and R<sub>4</sub> and m are as defined above), or a C1-C10 alkyl group substituted with a (b)-R<sub>4</sub>-group ((b) and R<sub>4</sub> are as defined above), a (c)-R<sub>4</sub>-group ((c) and R<sub>4</sub> are as defined above), a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>-group (R<sub>2</sub>, B<sub>1</sub> and R<sub>4</sub> are as defined above), a D<sub>4</sub>-R<sub>4</sub>-group (D<sub>4</sub> and R<sub>4</sub> are as defined above), a D<sub>5</sub>-group (D<sub>5</sub> is as defined above), a D<sub>1</sub>-R<sub>4</sub>-group (D<sub>1</sub> and R<sub>4</sub> are as defined above), a D<sub>2</sub>-group (D<sub>2</sub> is as defined above), a D<sub>3</sub>-R<sub>4</sub>-group (D<sub>3</sub> and R<sub>4</sub> are as defined above) or an A<sub>4</sub>-SO<sub>2</sub>-R<sub>4</sub>-group (A<sub>4</sub> is as defined above, and R<sub>4</sub> is as defined above);

B<sub>4</sub> represents an oxy group, a thio group or a -N((O)<sub>m</sub>R<sub>1</sub>)- group (R<sub>1</sub> and m are as defined above) provided that when B<sub>4</sub> is a thio group, A<sub>3</sub> is not a hydrogen atom];

2) a R<sub>1</sub>-B<sub>4</sub>-CO-R<sub>4</sub>-B<sub>4</sub>'-group (R<sub>1</sub>, B<sub>4</sub> and R<sub>4</sub> are as defined above, B<sub>4</sub>' is the same as or different from B<sub>4</sub>, and has the same meaning as that of B<sub>4</sub>, provided that when B<sub>4</sub> is a thio group, a R<sub>2</sub> is not a hydrogen atom) or a D<sub>2</sub>-R<sub>4</sub>-B<sub>4</sub>-group (D<sub>2</sub>, R<sub>4</sub> and B<sub>4</sub> are as defined above);

3) a R<sub>2</sub>-SO<sub>2</sub>-NR<sub>1</sub>-group (R<sub>2</sub> is as defined above, provided that a hydrogen atom is excluded, and R<sub>1</sub> is as defined above);

4) a (b)-group ((b) is as defined above);

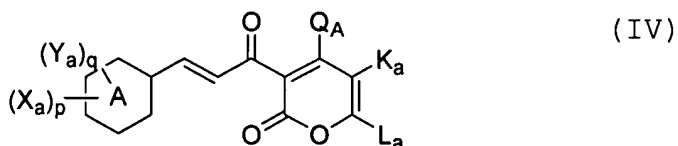
5) a (c)-group ((c) is as defined above); or  
 6) a  $R_1A_1N-NR_1'$ -group ( $R_1$ ,  $A_1$  and  $R_1'$  are as defined above);  
 IV.  $W_A$  represents an oxygen atom or a  $-NT_A$ -group [ $T_A$  represents a hydrogen atom, an  $A_9'$ -group ( $A_9'$  is as defined above), a  $D_5-R_4$ -group ( $D_5$  and  $R_4$  are as defined above) or a  $M_c$ -group ( $M_c$  is as defined above)];  
 V.  $K_A$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group,  $L_A$  represents a hydrogen atom, a C1-C10 alkyl group or a  $M_b$ -group ( $M_b$  is as defined above), or  $K_A$  and  $L_A$  may form a C1-C10 alkylene group or a  $-C(M_a')=C(M_a'')-C(M_a''')=C(M_a''')$ -group ( $M_a'$ ,  $M_a''$ ,  $M_a'''$  and  $M_a''''$  are the same or different, are the same as or different from  $M_a$ , and represent a hydrogen atom or  $M_a$ ); and

provided that when an A ring is a benzene ring,  $W_A$  is an oxygen atom,  $L_A$  is a methyl group,  $K_A$  is a hydrogen atom, and  $Q_A$  is a C1-C10 alkoxy group, a C3-10 alkenyloxy group or a C3-C10 alkynyloxy group, then  $q$  is not 0 and, when an A ring is a benzyl ring,  $W_A$  is an oxygen atom,  $L_A$  is a methyl group,  $K_A$  is a hydrogen atom, and  $Q_A$  is a C1-C10 alkoxy group, a C3-C10 alkenyloxy group or a C3-C10 alkynyloxy group, then  $q$  is 1, and  $Y_A$  is not a halogen atom, or C1-C10 alkyl group optionally substituted with a halogen atom or a C1-C10 alkoxy group, or a nitro group, or a C1-C10 alkoxy group, or a RB-group (R represents a C1-C10haloalkyl group and B represents an oxy group or a thio group) and, when A is a benzene ring,  $W_A$  is an oxygen atom,  $L_A$  and  $K_A$  form a 1,3-butadienylene group, and  $Q_A$  is a hydroxyl group or a C1-C10 alkoxy group, then  $q$  is 1, and  $Y_A$  is not a C1-C10 alkoxy group; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as

that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range]; and an inert carrier;

**4. (Original)** A I type collagen gene transcription suppressing composition, which comprises a 2H-pyran-2-one compound represented by the formula (IV):



[wherein

- I. A represents a benzene ring or a pyridine ring;
  - II. In  $(X_a)_p$ ,  $X_a$  is a substituent on a carbon atom, and represents a halogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a C1-C10 alkoxy group, or a nitro group, a C1-C10 alkoxy group, or a RB-group (R represents a C1-C10 haloalkyl group, and B represents an oxy group or a thio group), p represents 0, 1, 2, 3 or 4 and, when p is 2 or more,  $X_a$ 's are the same or different;
  - III. In  $(Y_a)_q$ ,  $Y_a$  is a substituent on a carbon atom, and represents a substituent of the following  $X_1$  group or  $Y_1$  group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more,  $Y_a$ 's are the same or different and, when q is 2 or more, the adjacent two same or different  $Y_a$ 's constitute a  $Z_1$  group, and may be fused with an A ring;
- (1) a  $X_1$  group:

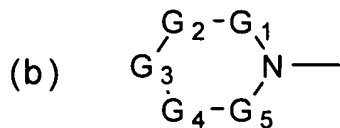
a  $M_a$ -group [ $M_a$  represents a  $R_b$ -group ( $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxyl group, a  $R_c$ - $B_a$ - $R_d$ -group ( $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e$ -CO- $R_d$ -group ( $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e$ -CO-O- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_eO$ -CO- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a HO-CO-CH=CH-group, a  $R_eR_{e'}N$ - $R_d$ -group ( $R_e$  and  $R_{e'}$  are the same or different,  $R_e$  is as defined above,  $R_{e'}$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e$ -CO-N $R_{e'}$ - $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a  $R_bO$ -CO-N( $R_e$ )- $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_{e'}N$ -CO- $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a  $R_eR_{e'}N$ -CO-N $R_{e''}$ - $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_{e''}$  are the same or different,  $R_e$  and  $R_{e'}$  are as defined above,  $R_{e''}$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_eR_{e'}N$ -C(=N $R_{e''}$ )-N $R_{e'''}$ - $R_d$ -group ( $R_e$ ,  $R_{e'}$ ,  $R_{e''}$  and  $R_{e'''}$  are the same or different,  $R_e$ ,  $R_{e'}$  and  $R_{e''}$  are as defined above,  $R_{e'''}$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_b$ -SO<sub>2</sub>-N $R_e$ - $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_{e'}N$ -SO<sub>2</sub>- $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group ], provided that when A represents a benzene ring, a  $X_a$ -group ( $X_a$  is as defined above) is excluded;

(2) a  $Y_1$  group:

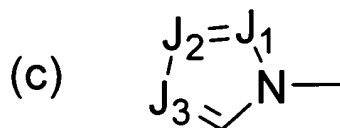
a  $M_b$ - $R_d$ -group [ $M_b$  represents a  $M_c$ -group ( $M_c$  represents a  $M_d$ - $R_d'$ -group ( $M_d$  represents a phenyl group optionally



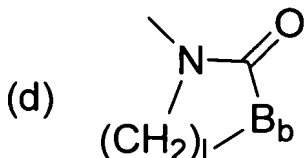
substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a pyridyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above) or a naphthyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or



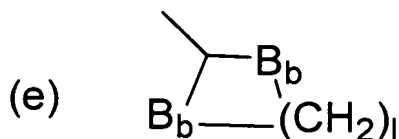
a (b)-group {in (b),  $G_1$ ,  $G_2$ ,  $G_4$  and  $G_5$  represent a methylene group which is connected to an adjacent atom with a single bond and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond and may be substituted with a methyl group, and  $G_3$  represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2$ - $B_1$ -group ( $R_2$  represents a C1-C10 alkyl group, a C-C10 alkenyl group or a C3-C10 alkynyl group, and  $B_1$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group)}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  is as defined above)),



a (c)-group (in (c),  $J_1$ ,  $J_2$  and  $J_3$  are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),



a (d)-group (l is 2, 3 or 4, and B<sub>b</sub> represents an oxy group, or a thio group), or



an (e)-group (l and B<sub>b</sub> are as defined above), R<sub>d</sub>' is the same as or different from R<sub>d</sub>, and has the same meaning as that of R<sub>d</sub>}}, a M<sub>c</sub>-B<sub>a</sub>-group (M<sub>c</sub> and B<sub>a</sub> are as defined above), a M<sub>c</sub>-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>-CO-O-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>O-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>R<sub>e</sub>N-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>O-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-NR<sub>e</sub>'-group (M<sub>c</sub>, R<sub>e</sub> and R<sub>e</sub>' are as defined above), a M<sub>c</sub>R<sub>e</sub>N-C(=NR<sub>e</sub>')-NR<sub>e</sub>'-group (M<sub>c</sub>, R<sub>e</sub>, R<sub>e</sub>' and R<sub>e</sub>' are as defined above), a M<sub>c</sub>-SO<sub>2</sub>-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above) or a M<sub>c</sub>R<sub>e</sub>N-SO<sub>2</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), and R<sub>d</sub> is as defined above];

(3) a Z<sub>1</sub> group:

a -N=C(Y<sub>a</sub>)-Y<sub>a</sub>'-group (Y<sub>a</sub> represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y<sub>a</sub>' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a -Y<sub>b</sub>-Y<sub>b</sub>'-Y<sub>b</sub>'-group (Y<sub>b</sub> and Y<sub>b</sub>' are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y<sub>b</sub>' represents a C1-

C4alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a  $-Y_c-O-Y_c'-O-$  group ( $Y_c$  and  $Y_c'$  are the same or different, and represent a C1-C10 alkylene group);

IV.  $Q_A$  represents a hydroxyl group, a (b)-group ((b) is as defined above), an  $A_9-B_6-B_c$ -group [ $A_9$  represents a substituent of the following  $A_7$  group or  $A_8$  group,  $B_6$  represents a carbonyl group or a thiocarbonyl group,  $B_c$  represents an oxy group or a  $-N((O)_mR_1)$ -group ( $m$  represents 0 or 1, and  $R_1$  is as defined above), provided that when  $A_9$  is a hydrogen atom,  $B_c$  is not a sulfonyl group], an  $A_7''-SO_2-B_c$ -group ( $A_7''$  represents a substituent of the following  $A_7'$  group, and  $B_c$  is as defined above), an  $A_8-SO_2-B_c$ -group ( $A_8$  represents a substituent of the following  $A_8$  group, and  $B_c$  is as defined above, provided that  $A_8$  is not a hydrogen atom), a  $R_1R_1'N-SO_2-B_c$ -group ( $R_1$  is as defined above,  $R_1'$  is the same as or different from  $R_1$ , and has the same meaning as that of  $R_1$ , and  $B_c$  is as defined above), a (b)- $SO_2-B_c$ -group ((b) and  $B_c$  are as defined above), an  $A_9'-B_c$ -group ( $A_9'$  represents a substituent of the following  $A_7'$  group or  $A_8'$  group, and  $B_c$  is as defined above), a  $D_5-R_4-B_c$ -group ( $D_5$  represents a substituent of the following  $D_5$  group,  $R_4$  represents a C1-C10 alkylene group, and  $B_c$  is as defined above),  $M_c-B_3-B_c$ -group ( $B_3$  represents a carbonyl group, a thiocarbonyl group or a sulfonyl group and  $M_c$  and  $B_c$  are as defined above ) or a  $M_c-B_c$ -group ( $M_c$  and  $B_c$  are as defined above);

(1) an  $A_7$  group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a  $R_2-B_1-R_4$ -group ( $R_2$  and  $B_1$  are as defined above, and  $R_4$  is as defined above), a  $D_4-R_4$ -group ( $D_4$  represents a

substituent of the following  $D_4$  group, and  $R_4$  is as defined above), a  $D_5$ - $R_4$ -group ( $D_5$  represents a substituent of the following  $D_5$  group,  $R_4$  is as defined above), a  $D_1$ - $R_4$ -group ( $D_1$  represents a substituent of the following  $D_1$  group, and  $R_4$  is as defined above), a (b)- $R_4$ -group ((b) is as defined above, and  $R_4$  is as defined above), a (c)- $R_4$ -group ((c) is as defined above, and  $R_4$  is as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  represents a substituent of the following  $D_2$  group, and  $R_4$  is as defined above), a  $D_3$ - $R_4$ -group ( $D_3$  represents a substituent of the following  $D_3$  group, and  $R_4$  is as defined above), an  $A_4$ - $SO_2$ - $R_4$ -group ( $A_4$  represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a  $R_1R_1'$ -N-group ( $R_1$  and  $R_1'$  are as defined above), and  $R_4$  is as defined above} or an  $A_2$ -CO- $R_4$ -group ( $A_2$  represents a substituent of the following  $A_2$  group, and  $R_4$  is as defined above);

(2) an  $A_8$  group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;

(3) an  $A_7'$  group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a  $R_2$ - $B_1$ - $R_4'$ -group ( $R_2$  and  $B_1$  are as defined above, and  $R_4'$  represents a C<sub>2</sub>-C10 alkylene group), a  $D_4$ - $R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_1$ - $R_4'$ -group ( $D_1$  and  $R_4'$  are as defined above), a (b)- $R_4'$ -group ((b) and  $R_4'$  are as defined above), a (c)- $R_4'$ -group ((c) and  $R_4'$  are as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  and  $R_4$  are as defined above), a  $D_3$ - $R_4'$ -group ( $D_3$  and  $R_4'$  are as defined above) or an  $A_2$ -CO- $R_4$ -group ( $A_2$  and  $R_4$  are as defined above);

(4) an  $A_8'$  group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;

(5) an A<sub>7</sub>' group: a C<sub>2</sub>-C<sub>10</sub> alkenyl group, a C<sub>3</sub>-C<sub>10</sub> alkenyl group substituted with a halogen atom, a C<sub>3</sub>-C<sub>10</sub> alkynyl group optionally substituted with a halogen atom, a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>'-group (R<sub>2</sub>, B<sub>1</sub> and R<sub>4</sub>' are as defined above), a D<sub>4</sub>-R<sub>4</sub>'-group (D<sub>4</sub> and R<sub>4</sub>' are as defined above), a D<sub>5</sub>-R<sub>4</sub>-group (D<sub>5</sub> and R<sub>4</sub> are as defined above), a D<sub>1</sub>-R<sub>4</sub>'-group (D<sub>1</sub> and R<sub>4</sub>' are as defined above), (b)-R<sub>4</sub>'-group ((b) and R<sub>4</sub>' are as defined above), a (c)-R<sub>4</sub>'-group ((c) and R<sub>4</sub>' are as defined above), a D<sub>2</sub>-R<sub>4</sub>-group (D<sub>2</sub> and R<sub>4</sub> are as defined above), a NO<sub>2</sub>-R<sub>4</sub>-group (R<sub>4</sub> is as defined above) or an A<sub>2</sub>-CO-R<sub>4</sub>-group (A<sub>2</sub> and R<sub>4</sub> are as defined above);

(i) a D<sub>4</sub> group: a hydroxyl group or an A<sub>1</sub>-O-group [A<sub>1</sub> represents a R<sub>3</sub>-(CHR<sub>0</sub>)<sub>m</sub>-(B<sub>2</sub>-B<sub>3</sub>)<sub>m'</sub>-group {R<sub>3</sub> represents a hydrogen atom, or a C<sub>1</sub>-C<sub>10</sub> alkyl group optionally substituted with a halogen atom or a R<sub>2</sub>-B<sub>1</sub>-group (R<sub>2</sub> and B<sub>1</sub> are as defined above), or a C<sub>2</sub>-C<sub>10</sub> alkenyl group, or a C<sub>2</sub>-C<sub>10</sub> alkynyl group, R<sub>0</sub> represents a hydrogen atom, a C<sub>1</sub>-C<sub>10</sub> alkyl group or a C<sub>2</sub>-C<sub>10</sub> haloalkyl group, m is as defined above, B<sub>2</sub> represents a single bond, an oxy group, a thio group or a -N(O)<sub>n</sub>R<sub>1</sub>'-group (R<sub>1</sub>' is as defined above, and n represents 0 or 1, B<sub>3</sub> is as defined above, m' represents 0 or 1 and, when B<sub>3</sub> is a sulfonyl group, m is 0, and R<sub>3</sub> is not a hydrogen atom) }];

(ii) a D<sub>5</sub> group: an O=C(R<sub>3</sub>)-group (R<sub>3</sub> is as defined above), an A<sub>1</sub>-(O)<sub>n</sub>-N=C(R<sub>3</sub>)-group (A<sub>1</sub>, n and R<sub>3</sub> are as defined above), a R<sub>1</sub>-B<sub>0</sub>-CO-R<sub>4</sub>-(O)<sub>n</sub>-N=C(R<sub>3</sub>)-group [R<sub>1</sub>, R<sub>4</sub>, n and R<sub>3</sub> are as defined above, and B<sub>0</sub> represents an oxy group, a thio group or a -N((O)<sub>m</sub>R<sub>1</sub>'-group (R<sub>1</sub>' and m are as defined above)], a D<sub>2</sub>-R<sub>4</sub>-(O)<sub>n</sub>-N=C(R<sub>3</sub>)-group (D<sub>2</sub>, R<sub>4</sub>, n and R<sub>3</sub> are as defined above) or a R<sub>1</sub>A<sub>1</sub>N-N=C(R<sub>3</sub>)-group (R<sub>1</sub>, A<sub>1</sub> and R<sub>3</sub> are as defined above);

(iii) a  $D_1$  group: a  $(R_1-(O)_k-A_1N-(O)_{k'})$ -group ( $R_1$  and  $A_1$  are as defined above, and  $k$  and  $k'$  are the same or different, and represent 0 or 1);

(iv) a  $D_2$  group: a cyano group, a  $R_1R_1'NC(=N-(O)_n-A)$ -group ( $R_1$ ,  $R_1'$ ,  $n$  and  $N_1$  are as defined above), an  $A_1N=C(-OR_2)$ -group ( $A_1$  and  $R_2$  are as defined above) or a  $NH_2-CS$ -group.

(v) a  $D_3$  group: a nitro group or a  $R_1OSO_2$ -group ( $R_1$  is as defined above);

(vi) an  $A_2$  group:

1) an  $A_3-B_4$ -group

[ $A_3$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a  $R_a-(R_4)_m$ -group ( $R_a$  represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and  $R_4$  and  $m$  are as defined above), or a C1-C10 alkyl group substituted with a (b)- $R_4$ -group ((b) and  $R_4$  are as defined above), a (c)- $R_4$ -group ((c) and  $R_4$  are as defined above), a  $R_2-B_1-R_4$ -group ( $R_2$ ,  $B_1$  and  $R_4$  are as defined above), a  $D_4-R_4$ -group ( $D_4$  and  $R_4$  are as defined above), a  $D_5$ -group ( $D_5$  is as defined above), a  $D_1-R_4$ -group ( $D_1$  and  $R_4$  are as defined above), a  $D_2$ -group ( $D_2$  is as defined above), a  $D_3-R_4$ -group ( $D_3$  and  $R_4$  are as defined above) or an  $A_4-SO_2-R_4$ -group ( $A_4$  is as defined above, and  $R_4$  is as defined above);

$B_4$  represents an oxy group, a thio group or a  $-N((O)_mR_1)$ -group ( $R_1$  and  $m$  are as defined above), provided that when  $B_4$  is a thio group,  $A_3$  is not a hydrogen atom];

2) a  $R_1-B_4-CO-R_4-B_4'$ -group ( $R_1$ ,  $B_4$  and  $R_4$  are as defined above,  $B_4'$  is the same as or different from  $B_4$ , and has the

same meaning as that of B<sub>4</sub>, provided that when B<sub>4</sub> is a thio group, R<sub>2</sub> is not a hydrogen atom) or a D<sub>2</sub>-R<sub>4</sub>-B<sub>4</sub>-group (D<sub>2</sub>, R<sub>4</sub> and B<sub>4</sub> are as defined above);

3) a R<sub>2</sub>-SO<sub>2</sub>-NR<sub>1</sub>-group (R<sub>2</sub> is as defined above, provided that a hydrogen atom is excluded, and R<sub>1</sub> is as defined above),

4) a (b)-group ((b) is as defined above);

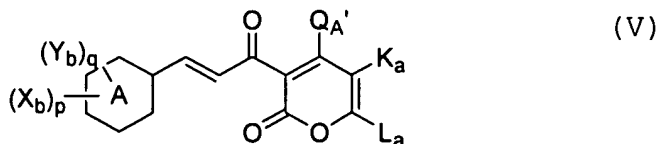
5) a (c)-group ((c) is as defined above); or

6) a R<sub>1</sub>A<sub>1</sub>N-NR<sub>1</sub>'-group (R<sub>1</sub>, R<sub>1</sub> and R<sub>1</sub>' are as defined above);

V. K<sub>a</sub> represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group; L<sub>a</sub> represents a hydrogen atom, a C1-C10 alkyl group or a M<sub>b</sub>-group (M<sub>b</sub> is as defined above), or K<sub>a</sub> and L<sub>a</sub> may form a C1-C10 alkylene group, provided that when K<sub>a</sub> is a hydrogen atom, L<sub>a</sub> is a methyl group and an A ring is a benzene ring, p is 2, 3 or 4 in the case that q is 0; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in a range]; and an inert carrier;

**5. (Original)** A 2H-pyran-2-one compound represented by the formula (V):



[wherein

I. A represents a benzene ring or a pyridine ring;

II. In  $(X_b)_p$ ,  $X_b$  is a substituent on a carbon atom, and represents a halogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a C1-C10 alkoxy group, or a nitro group, or a C2-C10 alkoxy group, or a RB-group (R represents a C1-C10 haloalkyl group, and B represents an oxy group or a thio group), p represents 0, 1, 2, 3 or 4 and, when p is 2 or more,  $X_b$ 's are the same or different;

III. In  $(Y_b)_q$ ,  $Y_b$  is a substituent on a carbon atom, and represents a substituent of the following  $X_2$  group or  $Y_2$  group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more,  $Y_b$ 's are the same or different and, when q is 2 or more, the adjacent two same or different  $Y_b$ 's constitutes a group of a  $Z_2$  group, and may be fused with an A ring;

(1) a  $X_2$  group:

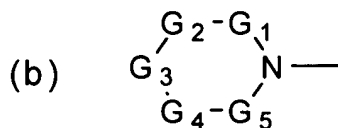
a  $M_a$ -group [ $M_a$  represents a  $R_b$ -group ( $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a  $R_c$ - $B_a$ - $R_d$ -group ( $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e$ -CO- $R_d$ -group ( $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e$ -CO-O- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_e$ O-CO- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a HO-CO-CH=CH-group, a  $R_eR_e'$ N- $R_d$ -group ( $R_e$  and  $R_e'$  are the same or different,  $R_e$  is as defined above,  $R_e'$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e$ -CO-N $R_e'$ - $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_b$ O-CO-N( $R_e$ )- $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above),



a  $R_e R_{e'} N-CO-R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a  $R_e R_{e'} N-CO-NR_d''-R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_e''$  are the same or different,  $R_e$  has the same meaning as that of  $R_{e'}$ ,  $R_e''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e R_{e'} N-C(=NR_e'')-NR_e'''-R_d$ -group ( $R_e$ ,  $R_{e'}$ ,  $R_e''$  and  $R_e'''$  are the same or different,  $R_e$ ,  $R_{e'}$  and  $R_e''$  are as defined above,  $R_e'''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_b-SO_2-NR_e-R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_e R_{e'} N-SO_2-R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that, when A represents a benzene ring, then, a halogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a C1-C10 alkoxy group, or a nitro group, or a C1-C10 alkoxy group, or a RB-group (R and B are as described above) is excluded;

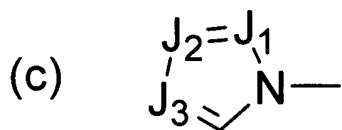
(2) a  $Y_2$  group:

a  $M_b-R_d$ -group [ $M_b$  represents a  $M_c$ -group ( $M_c$  represents a  $M_d-R_d'$ -group ( $M_d$  represents a phenyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a pyridyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a naphthyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above) or

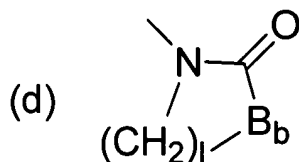


a (b)-group {in (b),  $G_1$ ,  $G_2$ ,  $G_4$  and  $G_5$  represent a methylene group which is connected to an adjacent atom with a single bond and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond and may be substituted with a methyl group, and  $G_3$  represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a

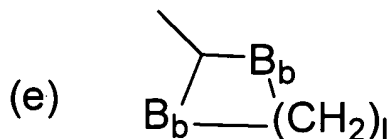
methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group, or a  $-NR_1$ -group ( $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2-B_1$ -group ( $R_2$  represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and  $B_1$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $NR_1$ - group ( $R_1$  is as defined above)),



a (c)-group (in(c),  $J_1$ ,  $J_2$  and  $J_3$  are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),



a (d) group ( $l$  is 2, 3 or 4, and  $B_b$  represents an oxy group or a thio group) or



an (e)-group ( $l$  and  $B_b$  are as defined above),  $R_d'$  is the same as or different from  $R_d$ , and has the same meaning as that of  $R_d$ }}, a  $M_c-B_a$ -group ( $M_c$  and  $B_a$  are as defined above), a  $M_c-CO$ -group ( $M_c$  is as defined above), a  $M_c-CO-O$ -group ( $M_c$  is as defined above), a  $M_cO-CO$ -group ( $M_c$  is as defined above), a  $M_cR_eN$ -group ( $M_c$  and  $R_e$  are as defined above), a  $M_c-$

CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>O-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-NR<sub>e</sub>'-group (M<sub>c</sub>, R<sub>e</sub> and R<sub>d</sub>' are as defined above), a M<sub>c</sub>R<sub>e</sub>N-C(=NR<sub>e</sub>')-NR<sub>e</sub>''-group (M<sub>c</sub>, R<sub>e</sub>, R<sub>e</sub>' and R<sub>e</sub>'' are as defined above), a M<sub>c</sub>-SO<sub>2</sub>-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above) or M<sub>c</sub>R<sub>e</sub>N-SO<sub>2</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), and R<sub>d</sub> is as defined above];

(3) a Z<sub>2</sub> group:

a -N=C(Y<sub>a</sub>)-Y<sub>a</sub>'-group (Y<sub>a</sub> represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y<sub>a</sub>' represents an oxy group, or a thio group, or an imino group optionally substituted C1-C10 alkyl group), a -Y<sub>b</sub>-Y<sub>b</sub>'-Y<sub>b</sub>''-group (Y<sub>b</sub> and Y<sub>b</sub>'' are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y<sub>b</sub>' represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a -Y<sub>c</sub>-O-Y<sub>c</sub>'-O-group (Y<sub>c</sub> and Y<sub>c</sub>' are the same or different, and represent a C1-C10 alkylene group);

III. Q<sub>A</sub>' represents a (b)-group ((b) is as defined above), an A<sub>9</sub>-B<sub>6</sub>-B<sub>c</sub>-group [A<sub>9</sub> represents a substituent of the following A<sub>7</sub> group or A<sub>8</sub> group, B<sub>6</sub> represents a carbonyl group or a thiocarbonyl group, and B<sub>c</sub> represents an oxy group or a -N((O)<sub>m</sub>R<sub>1</sub>-group (m represents 0 or 1, and R<sub>1</sub> is as defined above), provided that when A<sub>9</sub> is a hydrogen atom, then B<sub>c</sub> is not a sulfonyl group], an A<sub>7</sub>''-SO<sub>2</sub>-B<sub>c</sub>-group (A<sub>7</sub>'' represents a substituent of the following A<sub>7</sub>'' group, and B<sub>c</sub> is as defined above), an A<sub>8</sub>-SO<sub>2</sub>-B<sub>c</sub>-group (A<sub>8</sub> represents a substituent of the following A<sub>8</sub> group, and B<sub>c</sub> is as defined above, provided that A<sub>8</sub> is not a hydrogen atom), a R<sub>1</sub>R<sub>1</sub>'N-

SO<sub>2</sub>-B<sub>c</sub>-group (R<sub>1</sub> is as defined above, R<sub>1</sub>' is the same as or different from R<sub>1</sub>, and has the same meaning as that of R<sub>1</sub> and B<sub>c</sub> is as defined above), a (b)-SO<sub>2</sub>-B<sub>c</sub>-group ((b) and B<sub>c</sub> are as defined above), an A<sub>9</sub>'-B<sub>c</sub>-group (A<sub>9</sub>' represents a substituent of the following A<sub>7</sub>' group or A<sub>8</sub>' group, and B<sub>c</sub> is as defined above), a D<sub>5</sub>-R<sub>4</sub>-B<sub>c</sub>-group (D<sub>5</sub> represents a substituent of the following D<sub>5</sub> group, R<sub>4</sub> represents a C1-C10 alkylene group, and B<sub>c</sub> is as defined above), a M<sub>c</sub>-B<sub>3</sub>-B<sub>c</sub>-group (B<sub>3</sub> represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and M<sub>c</sub> and B<sub>c</sub> are as defined above) or a M<sub>c</sub>-B<sub>c</sub>-group (M<sub>c</sub> and B<sub>c</sub> are as defined above);

(1) an A<sub>7</sub> group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>-group (R<sub>2</sub> and B<sub>1</sub> are as defined above, and R<sub>4</sub> is as defined above), a D<sub>4</sub>-R<sub>4</sub>-group (D<sub>4</sub> represents a substituent of the following D<sub>4</sub> group, and R<sub>4</sub> is as defined above), a D<sub>5</sub>-R<sub>4</sub>-group (D<sub>5</sub> represents a substituent of the following D<sub>5</sub> group, and R<sub>4</sub> is as defined above), a D<sub>1</sub>-R<sub>4</sub>-group (D<sub>1</sub> represents a substituent of the following D<sub>1</sub> group, and R<sub>4</sub> is as defined above), a (b)-R<sub>4</sub>-group ((b) is as defined above, and R<sub>4</sub> is as defined above), a (c)-R<sub>4</sub>-group ((c) is as defined above, and R<sub>4</sub> is as defined above), a D<sub>2</sub>-R<sub>4</sub>-group (D<sub>2</sub> represents a substituent of the following D<sub>2</sub> group, and R<sub>4</sub> is as defined above), a D<sub>3</sub>-R<sub>4</sub>-group (D<sub>3</sub> represents a substituent of the following D<sub>3</sub> group, and R<sub>4</sub> is as defined above), an A<sub>4</sub>-SO<sub>2</sub>-R<sub>4</sub>-group (A<sub>4</sub> represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a R<sub>1</sub>R<sub>1</sub>'N-group (R<sub>1</sub> and R<sub>1</sub>' are as defined above), and R<sub>4</sub> is as defined above) or an A<sub>2</sub>-CO-R<sub>4</sub>-group (A<sub>2</sub> represents a substituent of the following A<sub>2</sub> group, and R<sub>4</sub> is as defined above);

- (2) an  $A_8$  group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;
- (3) an  $A_{7'}$  group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a  $C_2-B_1-R_4'$ -group ( $C_2$  and  $B_1$  are as defined above, and  $R_4'$  represents a C2-C10 alkylene group), a  $D_4-R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_1-R_4'$ -group ( $D_1$  and  $R_4'$  are as defined above), a  $(b)-R_4'$ -group ( $(b)$  and  $R_4'$  are as defined above), a  $(c)-R_4'$ -group ( $(c)$  and  $R_4'$  are as defined above), a  $D_2-R_4$ -group ( $D_2$  and  $R_4$  are as defined above), a  $D_3-R_4'$ -group ( $D_3$  and  $R_4'$  are as defined above) or an  $A_2-CO-R_4$ -group ( $A_2$  and  $R_4$  are as defined above);
- (4) an  $A_8$ -group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;
- (5) an  $A_{7''}$ -group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a  $R_2-B_1-R_4'$ -group ( $R_2$ ,  $B_1$  and  $R_4'$  are as defined above), a  $D_4-R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_5-R_4$ -group ( $D_5$  and  $R_4$  are as defined above), a  $D_1-R_4'$ -group ( $D_1$  and  $R_4'$  are as defined above), a  $(b)-R_4'$ -group ( $(b)$  and  $R_4'$  are as defined above), a  $(c)-R_4'$ -group ( $(c)$  and  $R_4'$  are as defined above), a  $D_2-R_4$ -group ( $D_2$  and  $R_4$  are as defined above), a  $NO_2-R_4$ -group ( $R_4$  is as defined above) or an  $A_2-CO-R_4$ -group ( $A_2$  and  $R_4$  are as defined above);
- (i) a  $D_4$  group: a hydroxyl group or an  $A_1-O$ -group [ $A_1$  represents a  $R_3-(CHR_0)_m-(B_2-B_3)_m'$ -group ( $R_3$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a  $R_2-B_1$ -group ( $R_2$  and  $B_1$  are as defined above), or a C2-C10 alkenyl group, or a C2-C1 alkynyl group,  $R_0$  represents a hydrogen atom, C1-C10

alkyl group or a C2-C10 haloalkyl group, m is as defined above, B<sub>2</sub> represents a single bond, an oxy group, a thio group or a -N((O)<sub>n</sub>R<sub>1</sub>'-group (R<sub>1</sub>' is as defined above, and n represents 0 or 1), B<sub>3</sub> is as defined above, and m' represents 0 or 1 and, when B<sub>3</sub> is a sulfonyl group, m is 0, and R<sub>3</sub> is not a hydrogen atom}}];

(ii) a D<sub>5</sub> group: O=C(R<sub>3</sub>) group (R<sub>3</sub> is as defined above), an A<sub>1</sub>-(O)<sub>n</sub>-N=C(R<sub>3</sub>)-group (A<sub>1</sub>, n and R<sub>3</sub> are as defined above), an R<sub>1</sub>-B<sub>0</sub>-CO-R<sub>4</sub>-(O)<sub>n</sub>-N=C(R<sub>3</sub>)-group [R<sub>1</sub>, R<sub>4</sub>, n and R<sub>3</sub> are as defined above, and B<sub>0</sub> represents an oxy group, a thio group or a -N((O)<sub>m</sub>R<sub>1</sub>'-group (R<sub>1</sub>' and m are as defined above)], a D<sub>2</sub>-R<sub>4</sub>-(O)<sub>n</sub>-N=C(R<sub>3</sub>)-group (D<sub>2</sub>, R<sub>4</sub>, n and R<sub>3</sub> are as defined above) or a R<sub>1</sub>A<sub>1</sub>N-N=C(R<sub>3</sub>)group (R<sub>1</sub>, A<sub>1</sub> and R<sub>3</sub> are as defined above);

(iii) a D<sub>1</sub> group: a (R<sub>1</sub>-(O)<sub>k</sub>-)A<sub>1</sub>N-(O)<sub>k</sub>'-group (R<sub>1</sub> and A<sub>1</sub> are as defined above, and k and k' are the same or different, and represent 0 or 1);

(iv) a D<sub>2</sub> group: a cyano group, a R<sub>1</sub>R<sub>1</sub>'NC(=N-(O)<sub>n</sub>-A<sub>1</sub>-group (R<sub>1</sub>, R<sub>1</sub>', n and A<sub>1</sub> are as defined above), an A<sub>1</sub>N=C(-OR<sub>2</sub>)-group (A<sub>1</sub> and R<sub>2</sub> are as defined above) or a NH<sub>2</sub>-CS-group.

(v) a D<sub>3</sub> group: a nitro group or a R<sub>1</sub>OSO<sub>2</sub>-group (R<sub>1</sub> is as defined above);

(vi) an A<sub>2</sub> group:

1) an A<sub>3</sub>-B<sub>4</sub>-group

[A<sub>3</sub> represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a R<sub>a</sub>-(R<sub>4</sub>)<sub>m</sub>-group (R<sub>a</sub> represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and R<sub>4</sub> and m are as

defined above), or a C1-C10 alkyl group substituted with a (b)-R<sub>4</sub>-group ((b) and R<sub>4</sub> are as defined above), a (c)-R<sub>4</sub>-group ((c) and R<sub>4</sub> are as defined above), a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>-group (R<sub>2</sub>, B<sub>1</sub> and R<sub>4</sub> are as defined above), a D<sub>4</sub>-R<sub>4</sub>-group (D<sub>4</sub> and R<sub>4</sub> are as defined above), a D<sub>5</sub>-group (D<sub>5</sub> is as defined above), a D<sub>1</sub>-R<sub>4</sub>-group (D<sub>1</sub> and R<sub>4</sub> are as defined above), a D<sub>2</sub>-group (D<sub>2</sub> is as defined above), a D<sub>3</sub>-R<sub>4</sub>-group (D<sub>3</sub> and R<sub>4</sub> are as defined above) or an A<sub>4</sub>-SO<sub>2</sub>-R<sub>4</sub>-group (A<sub>4</sub> is as defined above, and R<sub>4</sub> is as defined above),

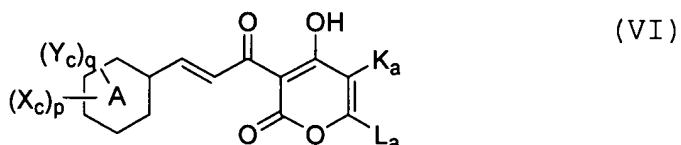
B<sub>4</sub> represents an oxy group, a thio group or a -N((O)<sub>m</sub>R<sub>1</sub>)-group (R<sub>1</sub> and m are as defined above), provided that when B<sub>4</sub> is a thio group, A<sub>3</sub> is not a hydrogen atom];  
 2) a R<sub>1</sub>-B<sub>4</sub>-CO-R<sub>4</sub>-B<sub>4</sub>'-group (R<sub>1</sub>, B<sub>4</sub> and R<sub>4</sub> are as defined above, B<sub>4</sub>' is the same as or different from B<sub>4</sub>, and has the same meaning as that of B<sub>4</sub> provided that when B<sub>4</sub> is a thio group, R<sub>2</sub> is not a hydrogen atom) or a D<sub>2</sub>-R<sub>4</sub>-B<sub>4</sub>-group (D<sub>2</sub>, R<sub>4</sub> and B<sub>4</sub> are as defined above);  
 3) a R<sub>2</sub>-SO<sub>2</sub>-NR<sub>1</sub>-group (R<sub>2</sub> is as defined above provided that a hydrogen atom is excluded, and R<sub>1</sub> is as defined above),  
 4) a (b)-group ((b) is as defined above);  
 5) a (c)-group ((c) is as defined above); or  
 6) a R<sub>1</sub>A<sub>1</sub>N-NR<sub>1</sub>'-group (R<sub>1</sub>, A<sub>1</sub> and R<sub>1</sub>' are as defined above);

IV. K<sub>a</sub> represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group, L<sub>a</sub> represents a hydrogen atom, a C1-C10 alkyl group or a M<sub>b</sub>-group (M<sub>b</sub> is as defined above), or K<sub>a</sub> and L<sub>a</sub> may form a C1-C10 alkylene group, provided that when an A ring is a benzene ring, p is 2, 3 or 4 in the case that q is 0; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of

substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range];

**6. (Original)** A 2H-pyran-2-one compound represented by the formula (VI):



[wherein

- I. A represents a benzene ring or a pyridine ring;
- II. In  $(X_c)_p$ ,  $X_c$  is a substituent on a carbon atom, and represents a hydroxyl group, or a halogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a C1-C10 alkoxy group, or a C2-C10 alkenyl group, or a  $R'-S(O)_1$ -group ( $R'$  represents a C1-C10 alkyl group, and 1 represents 0, 1 or 2), or a cyano group, or a C1-C10 alkoxy carbonyl group, or an aminocarbonyl group, or a  $(R')_2N$ -group ( $R'$  is as defined above), or a  $R'CO-NH$ -group ( $R'$  is as defined above), or a nitro group, or a C1-C10 alkoxy group, or a  $RB$ -group ( $R$  represents a C1-C10 haloalkyl group, and  $B$  represents an oxy group or a thio group),  $p$  represents 0, 1, 2, 3 or 4 and, when  $p$  is 2 or more,  $X_c$ 's are the same or different;
- III. In  $(Y_c)_q$ ,  $Y_c$  is a substituent on a carbon atom, and represents a substituent of the following  $X_3$  group or  $Y_3$  group,  $q$  represents 0, 1, 2, 3, 4 or 5, when  $q$  is 2 or more,  $Y_c$ 's are the same or different and, when  $q$  is 2 or more, the adjacent two same or different  $Y_c$ 's constitute a group of a  $Z_3$  group, and may be fused with an A ring;



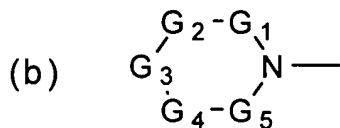
(1) a  $X_3$  group:

a  $M_a$ -group [ $M_a$  represents a  $R_b$ -group ( $R_b$  represents a C1-C10 alkyl group substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a  $R_c$ - $B_a$ - $R_d$ -group ( $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e$ -CO- $R_d$ -group ( $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e$ -CO-O- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_e$ O-CO- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a HO-CO-CH=CH-group, a  $R_eR_e'$ N- $R_d$ -group ( $R_e$  and  $R_e'$  are the same or different,  $R_e$  is as defined above,  $R_e'$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e$ -CO-N $R_e'$ - $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_b$ O-CO-N( $R_e$ )- $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'$ N-CO- $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_eR_e'$ N-CO-N $R_e''$ - $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_e''$  are the same or different,  $R_e$  and  $R_e'$  are as defined above,  $R_e''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_eR_e'$ N-C(=N $R_e''$ )-N $R_e'''$ - $R_d$ -group ( $R_e$ ,  $R_e'$ ,  $R_e''$  and  $R_e'''$  are the same or different,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above,  $R_e'''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_b$ -SO<sub>2</sub>-N $R_e$ - $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'$ N-SO<sub>2</sub>- $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that when A represents a benzene ring, then a hydroxy group, or a halogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a C1-C10 alkoxy group, or a C2-C10 alkenyl group, or a  $R'$ -S(O)<sub>1</sub>-group

(R' represents a C1-C10 alkyl group, and 1 represents 0, 1 or 2), or a cyano group, or a C1-C10 alkoxy carbonyl group, or an aminocarbonyl group, or a (R')<sub>2</sub>N-group (R' is as defined above), or a R'CO-NH-group (R' is as defined above), or a nitro group or a C1-C10 alkoxy group is excluded;

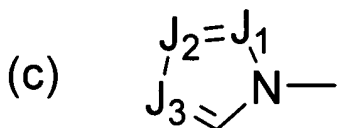
(2) a Y<sub>3</sub> group:

a M<sub>b</sub>-R<sub>d</sub>-group [M<sub>b</sub> represents a M<sub>c</sub>-group {M<sub>c</sub> represents a M<sub>d</sub>-R<sub>d</sub>'-group {M<sub>d</sub> represents a phenyl group optionally substituted with a M<sub>a</sub>-group (M<sub>a</sub> is as defined above), or a pyridyl group optionally substituted with a M<sub>a</sub>-group (M<sub>a</sub> is as defined above), or a naphthyl group optionally substituted with a M<sub>a</sub>-group (M<sub>a</sub> is as defined above), or

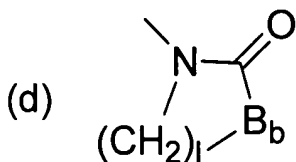


a (b)-group {in (b), G<sub>1</sub>, G<sub>2</sub>, G<sub>4</sub> and G<sub>5</sub> represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and G<sub>3</sub> represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -NR<sub>1</sub>-group {R<sub>1</sub> represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a R<sub>2</sub>-B<sub>1</sub>-group (R<sub>2</sub> represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and B<sub>1</sub> represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group) or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, or a C2-C10

alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  is as defined above)),

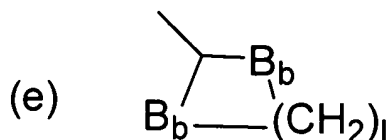


a (c)-group (in (c),  $J_1$ ,  $J_2$  and  $J_3$  are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),



a (d)-group ( $l$  is 2, 3 or 4, and  $B_b$  represents an oxy group or a thio group)

or



an (e)-group ( $l$  and  $B_b$  are as defined above),  $R_d'$  is the same as or different from  $R_d$ , and has the same meaning as that of  $R_d$ }}, a  $M_c-B_a$ -group ( $M_c$  and  $B_a$  are as defined above), a  $M_c-CO$ -group ( $M_c$  is as defined above), a  $M_c-CO-O$ -group ( $M_c$  is as defined above), a  $M_cO-CO$ -group ( $M_c$  is as defined above), a  $M_cR_eN$ -group ( $M_c$  and  $R_e$  are as defined above), a  $M_c-CO-NR_e$ -group ( $M_c$  and  $R_e$  are as defined above), a  $M_cO-CO-NR_e$ -group ( $M_c$  and  $R_e$  are as defined above), a  $M_cR_eN-CO$ -group ( $M_c$  and  $R_e$  are as defined above), a  $M_cR_eN-CO-NR_e'$ -group ( $M_c$ ,  $R_e$  and  $R_e'$  are as defined above), a  $M_cR_eN-C(=NR_e')-NR_e''$ -group ( $M_c$ ,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above), a  $M_c-SO_2-NR_e$ -group ( $M_c$  and  $R_e$  are as defined above) or a  $M_cR_eN-SO_2$ -group ( $M_c$  and

$R_e$  are as defined above), and  $R_d$  is as defined above], provided that when  $P$  is 0, then a morpholino group, or a phenyl group, or a phenoxy group substituted with a trifluoromethyl group, or a phenoxy group substituted with single or plural halogen atoms is excluded;

(3) a  $Z_3$  group:

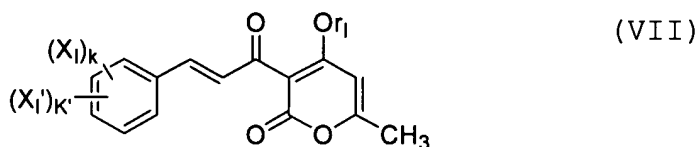
a  $-N=C(Y_a)-Y_a'$ -group ( $Y_a$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and  $Y_a'$  represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a  $-Y_b-Y_b'-Y_b''$ -group ( $Y_b$  and  $Y_b''$  are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and  $Y_b'$  represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a  $-Y_c-O-Y_c'-O$ -group ( $Y_c$  and  $Y_c'$  are the same or different, and represent a C1-C10 alkylene group), provided that when  $p$  is 0, then  $Y_c$  is not fused with an A ring to form a benzo[1,3]dioxol ring;

IV.  $K_a$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group,  $L_a$  represents a hydrogen atom, a C1-C10 alkyl group or a  $M_b$ -group ( $M_b$  is as defined above), or  $K_a$  and  $L_a$  may form a C1-C10 alkylene group, provided that when an A ring is a benzene ring, then  $q$  is not 0 and, when an A ring is a benzene ring or a pyridine ring, then  $p$  and  $q$  are not 0 at the same time, in either case; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above, and between the plurality of

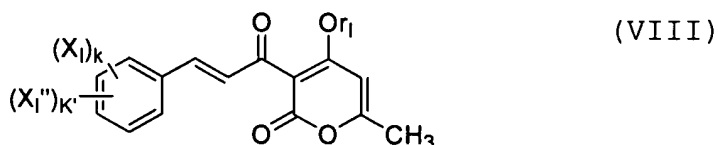
substituents, a selection range of selected substituents is the same, while the selected range may be the same or different as far as they are selected in the range];

**7. (Original)** A I type collagen gene transcription suppressing composition, which comprises a 2H-pyran-2-one compound represented by the formula (VII):



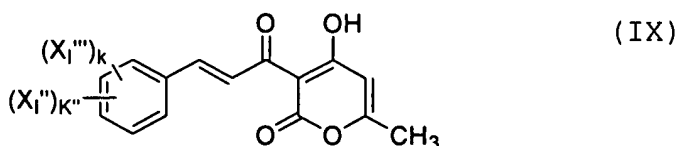
[wherein  $X_1$  represents a C2-C4 alkenyl group, a C2-C4 alkynyl group, a  $R_I-S(O)_1$ -group ( $R_I$  represents a C1-C4 alkyl group, and 1 represents an integer of 0 to 2), a cyano group, a carboxy group, a C1-C4 alkoxy carbonyl group, a  $(R_I)_2N$ -group ( $R_I$  is as defined above), a  $R_I-CO-NH$ -group ( $R_I$  is as defined above), a  $R_I O-CO-NH$ -group ( $R_I$  is as defined above), a  $R_I NH-CO-NH$ -group ( $R_I$  is as defined above) or a  $(R_I')_2N-CO$ -group ( $R_I'$  represents a hydrogen atom or a C1-C4 alkyl group),  $X_1'$  represents a halogen atom, or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a nitro group, or a C1-C4 alkoxy group, or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), k represents 0 or 1,  $k'$  represents an integer of 0 to 4, when k is 0,  $k'$  is an integer of 2 to 4 and, when  $k'$  is 2 to 4,  $X_1'$ 's may be different, and  $r_1$  is a C1-C4 alkyl group, a C2-C4 alkenyl group or a C2-C4 alkynyl group], and an inert carrier;

**8. (Original)** A 2H-pyran-2-one compound represented by the formula (VIII):



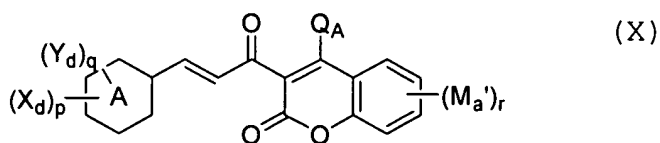
[wherein  $X_1$  represents a C2-C4 alkenyl group, a C2-C4 alkynyl group, a  $R_1-S(O)_1$ -group ( $R_1$  represents a C1-C4 alkyl group, and 1 represents an integer of 0 to 2), a cyano group, a carboxy group, a C1-C4 alkoxy carbonyl group, a  $(R_1)_2N$ -group ( $R_1$  is as defined above), a  $R_1-CO-NH$ -group ( $R_1$  is as defined above), a  $R_1O-CO-NH$ -group ( $R_1$  is as defined above), a  $R_1NH-CO-NH$ -group ( $R_1$  is as defined above) or  $(R_1')_2N-CO$ -group ( $R_1'$  represents a hydrogen atom or a C1-C4 alkyl group),  $X_1''$  represents a halogen atom, or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a nitro group, or a C2-C4 alkoxy group, or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), k represents 0 or 1,  $k'$  represents an integer of 0 to 4, when k is 0,  $k'$  is an integer of 2 to 4 and, when  $k'$  is 2 to 4,  $X_1''$ 's may be different, and  $r_1$  is a C1-C4 alkyl group, a C2-C4 alkenyl group or a C2-C4 alkynyl group];

**9. (Original)** A 2H-pyran-2-one compound represented by the formula (IX):



[wherein  $X_I'''$  represents a C2-C4 alkenyl group, a C2-C4 alkynyl group, a carboxy group, a C2-C4 alkoxycarbonyl group or a  $(R_{II})_2N$ -group ( $R_{II}$  represents a C2-C4 alkyl group),  $X_I''$  represents a halogen atom, or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a nitro group, or a C2-C4 alkoxy group, or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), k represents 0 or 1,  $k''$  represents an integer of 0 to 2, when k is 0,  $k''$  is 2 and, when  $k''$  is 2,  $X''$ 's are different];

**10. (Original)** A I type collagen gene transcription suppressing composition, which comprises a 2H-1-benzopyran-2-one compound represented by the formula (X):



[wherein

- I. A represents a benzene ring or a pyridine ring;
- II. In  $(X_d)_p$ ,  $X_d$  is a substituent on a carbon atom, and represents a methoxy group or an ethoxy group, p represents 0, 1, 2, 3 or 4 and, when p is 2 or more,  $X_d$ 's are the same or different;
- III. In  $(Y_d)_q$ ,  $Y_d$  is a substituent on a carbon atom, and represents a substituent of the following  $X_4$  group or  $Y_4$  group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more,  $Y_d$ 's are the same or different and, q is 2 or more,

the adjacent two same or different  $Y_d$ 's constitute a group of a  $Z_4$  group, and may be fused with an A ring;

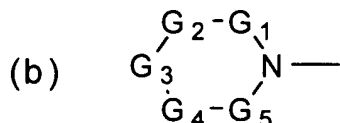
(1) a  $X_4$  group:

a  $M_a$ -group [ $M_a$  represents a  $R_b$ -group ( $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen, atom, a nitro group, a cyano group, a hydroxyl group, a  $R_c$ - $B_a$ - $R_d$ -group ( $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e$ -CO- $R_d$ -group ( $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e$ -CO-O- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_e$ O-CO- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a HO-CO-CH=CH-group, a  $R_eR_e'N$ - $R_d$ -group ( $R_e$  and  $R_e'$  are the same or different,  $R_e$  is as defined above,  $R_e'$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e$ -CO-N $R_e'$ - $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_b$ O-CO-N( $R_e$ )- $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'N$ -CO- $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_eR_e'N$ -CO-N $R_e''$ - $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_e''$  are the same or different,  $R_e$  and  $R_e'$  are as defined above,  $R_e''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_eR_e'N$ -C(=N $R_e''$ )-N $R_e'''$ - $R_d$ -group ( $R_e$ ,  $R_e'$ ,  $R_e''$  and  $R_e'''$  are the same or different,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above,  $R_e'''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_b$ -SO<sub>2</sub>-N $R_e$ - $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'N$ -SO<sub>2</sub>- $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that when A represents a benzene ring, then a methoxy group and an ethoxy group are excluded;

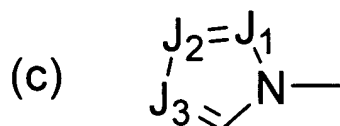


(2) a Y<sub>4</sub> group:

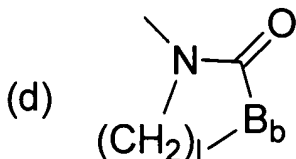
a M<sub>b</sub>-R<sub>d</sub>-group [M<sub>b</sub> represents a M<sub>c</sub>-group {M<sub>c</sub> represents a M<sub>d</sub>-R<sub>d</sub>'-group {M<sub>d</sub> represents a phenyl group optionally substituted with a M<sub>a</sub>-group (M<sub>a</sub> is as defined above), or a pyridyl group optionally substituted with a M<sub>a</sub>-group (M<sub>a</sub> is as defined above), or a naphthyl group optionally substituted with a M<sub>a</sub>-group (M<sub>a</sub> is as defined above), or



a (b)-group {in (b), G<sub>1</sub>, G<sub>2</sub>, G<sub>4</sub> and G<sub>5</sub> represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and G<sub>3</sub> represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -NR<sub>1</sub>-group {R<sub>1</sub> represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group optionally substituted with a halogen atom or a R<sub>2</sub>-B<sub>1</sub>-group (R<sub>2</sub> represents a C1-C10 alkyl group, a C3-C10 alkenyl group or C3-C10 alkynyl group, and B<sub>1</sub> represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group} or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -NR<sub>1</sub>-group (R<sub>1</sub> is as defined above)},

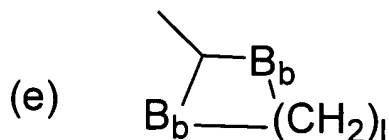


a (c)-group (in (c),  $J_1$ ,  $J_2$  and  $J_3$  are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),



a (d)-group ( $l$  is 2, 3 or 4, and  $B_b$  represents an oxy group or a thio group)

or



an (e)-group ( $l$  and  $B_b$  are as defined above),  $R_d'$  is the same as or different from  $R_d$ , and has the same meaning as that of  $R_d$ }}, a  $M_c$ - $B_a$ -group ( $M_c$  and  $B_a$  are as defined above), a  $M_c$ -CO-group ( $M_c$  is as defined above), a  $M_c$ -CO-O-group ( $M_c$  is as defined above), a  $M_c$ O-CO-group ( $M_c$  is as defined above), a  $M_cR_e$ N-group ( $M_c$  and  $R_e$  are as defined above), a  $M_c$ -CO-NR $_e$ -group ( $M_c$  and  $R_e$  are as defined above), a  $M_c$ O-CO-NR $_e$ -group ( $M_c$  and  $R_e$  are as defined above), a  $M_cR_e$ N-CO-group ( $M_c$  and  $R_e$  are as defined above), a  $M_cR_e$ N-CO-NR $_e'$ -group ( $M_c$ ,  $R_e$  and  $R_e'$  are as defined above), a  $M_cR_e$ N-C(=NR $_e'$ )-NR $_e''$ -group ( $M_c$ ,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above), a  $M_c$ -SO $_2$ -NR $_e$ -group ( $M_c$  and  $R_e$  are as defined above) or a  $M_cR_e$ N-SO $_2$ -group ( $M_c$  and  $R_e$  are as defined above), and  $R_d$  is as defined above];

(3) a  $Z_4$  group:

a -N=C( $Y_a$ )- $Y_a'$ -group ( $Y_a$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and  $Y_a'$  represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a - $Y_b$ - $Y_b'$ - $Y_b''$ -group

(Y<sub>b</sub> and Y<sub>b</sub>" are the same or different, a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y<sub>b</sub>' represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a -Y<sub>c</sub>-O-Y<sub>c</sub>'-O-group (Y<sub>c</sub> and Y<sub>c</sub>' are the same or different, and represent a C1-C10 alkylene group);

IV. Q<sub>A</sub> represents a hydroxyl group, a (b) group ((b) is as defined above), an A<sub>9</sub>-B<sub>6</sub>-B<sub>c</sub>-group [A<sub>9</sub> represents a substituent of the following A<sub>7</sub> group or A<sub>8</sub> group, B<sub>6</sub> represents a carbonyl group or a thiocarbonyl group, and B<sub>c</sub> represents an oxy group or a -N((O)<sub>m</sub>R<sub>1</sub>)-group (m represents 0 or 1, and R<sub>1</sub> is as defined above), provided that when A<sub>9</sub> is a hydrogen atom, then B<sub>c</sub> is not a sulfonyl group], an A<sub>7</sub>"-SO<sub>2</sub>-B<sub>c</sub>-group (A<sub>7</sub>" represents a substituent of the following A<sub>7</sub>" group, and B<sub>c</sub> is as defined above), an A<sub>8</sub>-SO<sub>2</sub>-B<sub>c</sub>-group (A<sub>8</sub> represents a substituent of the following A<sub>8</sub> group, and B<sub>c</sub> is as defined above, provided that A<sub>8</sub> is not a hydrogen atom), a R<sub>1</sub>R<sub>1</sub>'N-SO<sub>2</sub>-B<sub>c</sub>-group (R<sub>1</sub> is as defined above, R<sub>1</sub>' is the same as or different from R<sub>1</sub>, and has the same meaning as that of R<sub>1</sub>, and B<sub>c</sub> is as defined above), a (b)-SO<sub>2</sub>-B<sub>c</sub>-group ((b) and B<sub>c</sub> are as defined above), an A<sub>9</sub>'-B<sub>c</sub>-group (A<sub>9</sub>' represents a substituent of the following A<sub>7</sub>' group or A<sub>8</sub>' group, and B<sub>c</sub> is as defined above), a D<sub>5</sub>-R<sub>4</sub>-B<sub>c</sub>-group (D<sub>5</sub> represents a substituent of the following D<sub>5</sub> group, R<sub>4</sub> represents a C1-C10 alkylene group, and B<sub>c</sub> is as defined above), a M<sub>c</sub>-B<sub>3</sub>-B<sub>c</sub>-group (B<sub>3</sub> represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and M<sub>c</sub> and B<sub>c</sub> are as defined above) or a M<sub>c</sub>-B<sub>c</sub>-group (M<sub>c</sub> and B<sub>c</sub> are as defined above);

(1) an A<sub>7</sub> group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a  $R_2$ - $B_1$ - $R_4$ -group ( $R_2$  and  $B_1$  are as defined above, and  $R_4$  is as defined above), a  $D_4$ - $R_4$ -group ( $D_4$  represents a substituent of the following  $D_4$  group, and  $R_4$  is as defined above), a  $D_5$ - $R_4$ -group ( $D_5$  represents a substituent of the following  $D_5$  group, and  $R_4$  is as defined above), a  $D_1$ - $R_4$ -group ( $D_1$  represents a substituent of the following  $D_1$  group, and  $R_4$  is as defined above), a (b)- $R_4$ -group ((b) is as defined above, and  $R_4$  is as defined above), a (c)- $R_4$ -group ((c) is as defined above, and  $R_4$  is as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  represents a substituent of the following  $D_2$  group, and  $R_4$  is as defined above), a  $D_3$ - $R_4$ -group ( $D_3$  represents a substituent of the following  $D_3$  group, and  $R_4$  is as defined above), an  $A_4$ -SO<sub>2</sub>- $R_4$ -group ( $A_4$  represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a  $R_1R_1'$ -N-group ( $R_1$  and  $R_1'$  are as defined above), and  $R_4$  is as defined above) or an  $A_2$ -CO- $R_4$ -group ( $A_2$  represents a substituent of the following  $A_2$  group, and  $R_4$  is as defined above);

(2) an  $A_8$  group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;

(3) an  $A_7'$  group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a  $R_2$ - $B_1$ - $R_4'$ -group ( $R_2$  and  $B_1$  are as defined above, and  $R_4'$  represents a C2-C4 alkylene group), a  $D_4$ - $R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_1$ - $R_4'$ -group ( $D_1$  and  $R_4'$  are as defined above), a (b)- $R_4'$ -group ((b) and  $R_4'$  are as defined above), a (c)- $R_4'$ -group ((c) and  $R_4'$  are as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  and  $R_4$  are as defined above), a  $D_3$ - $R_4'$ -group ( $D_3$

and  $R_4'$  are as defined above) or an  $A_2$ -CO- $R_4$ -group ( $A_2$  and  $R_4$  are as defined above);

(4) an  $A_8'$  group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;

(5) an  $A_7''$  group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a  $R_2$ - $B_1$ - $R_4'$ -group ( $R_2$ ,  $B_1$  and  $R_4'$  are as defined above), a  $D_4$ - $R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_5$ - $R_4$ -group ( $D_5$  and  $R_4$  are as defined above), a  $D_1$ - $R_4'$ -group ( $D_1$  and  $D_4'$  are as defined above), a (b)- $R_4'$ -group ((b) and  $R_4'$  are as defined above), a (c)- $R_4'$ -group ((c) and  $R_4'$  are as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  and  $R_4$  are as defined above), a  $NO_2$ - $R_4$ -group ( $R_4$  is as defined above) or an  $A_2$ -CO- $R_4$ -group ( $A_2$  and  $R_4$  are as defined above);

(i) a  $D_4$  group: a hydroxy group or an  $A_1$ -O-group [ $A_1$  represents a  $R_3$ -(CHR<sub>0</sub>)<sub>m</sub>-( $B_2$ - $B_3$ )<sub>m'</sub>-group ( $R_3$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a  $R_2$ - $B_1$ -group ( $R_2$  and  $B_1$  are as defined above), or a C2-C10 alkenyl group, or C2-C10 alkynyl group,  $R_0$  represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group,  $m$  is as defined above,  $B_2$  represents a single bond, an oxy group, a thio group or a -N((O)<sub>m</sub> $R_1'$ )-group ( $R_1'$  is as defined above, and  $n$  represents 0 or 1),  $B_3$  is as defined above,  $m'$  represents 0 or 1 and, when  $B_3$  is a sulfonyl group, then  $m$  is 0, and  $R_3$  is not a hydrogen atom)]];

(ii) a  $D_5$  group: an O=C( $R_3$ )-group ( $R_3$  is as defined above), an  $A_1$ -(O)<sub>n</sub>-N=C( $R_3$ )-group ( $A_1$ ,  $n$  and  $R_3$  are as defined above), a  $R_1$ - $B_0$ -CO- $R_4$ -(O)<sub>n</sub>-N=C( $R_3$ )-group [ $R_1$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above, and  $B_0$  represents an oxy group, a thio group or a -N((O)<sub>m</sub> $R_1'$ )-group ( $R_1'$  and  $m$  are as defined above)], a

$D_2-R_4-(O)_n-N=C(R_3)$ -group ( $D_2$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above) or a  $R_1A_1N-N=C(R_3)$ -group ( $R_1$ ,  $A_1$  and  $R_3$  are as defined above);

(iii) a  $D_1$  group: a  $(R_1-(O)_k-)A_1N-(O)_{k'}$ -group ( $R_1$  and  $A_1$  are as defined above, and  $k$  and  $k'$  are the same or different, and represent 0 or 1);

(iv) a  $D_2$  group: a cyano group, a  $R_1R_1'NC(=N-(O)_n-A_1)$ -group ( $R_1$ ,  $R_1'$ ,  $n$  and  $A_1$  are as defined above), an  $A_1N=C(-OR_2)$ -group ( $A_1$  and  $R_2$  are as defined above) or a  $NH_2-CS$ -group;

(v) a  $D_3$  group: a nitro group or a  $R_1OSO_2$ -group ( $R_1$  is as defined above);

(vi) an  $A_2$  group:

1) an  $A_3-B_4$ -group

[ $A_3$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a  $R_a-(R_4)_m$ -group ( $R_a$  represents a phenyl group, a pyridinyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and  $R_4$  and  $m$  are as defined above), or a C1-C10 alkyl group substituted with a (b)- $R_4$ -group ((b) and  $R_4$  are as defined above), a (c)- $R_4$ -group ((c) and  $R_4$  are as defined above), a  $R_2-B_1-R_4$ -group ( $R_2$ ,  $B_1$  and  $R_4$  are as defined above), a  $D_4-R_4$ -group ( $D_4$  and  $R_4$  are as defined above), a  $D_5$ -group ( $D_5$  is as defined above), a  $D_1-R_4$ -group ( $D_1$  and  $R_4$  are as defined above), a  $D_2$ -group ( $D_2$  is as defined above), a  $D_3-R_4$ -group ( $D_3$  and  $R_4$  are as defined above) or an  $A_4-SO_2-R_4$ -group ( $A_4$  is as defined above, and  $R_4$  is as defined above),

$B_4$  represents an oxy group, a thio group or a  $-N((O)_mR_1)$ -group ( $R_1$  and  $m$  are as defined above), provided

that when  $B_4$  is a thio group, then  $A_3$  is not a hydrogen atom];

2) a  $R_1-B_4-CO-R_4-B_4'$ -group ( $R_1$ ,  $B_4$  and  $R_4$  are as defined above,  $B_4'$  is the same as or different from  $B_4$ , and has the same meaning as that of  $B_4$ , provided that when  $B_4$  is a thio group, then  $R_2$  is not a hydrogen atom) or a  $D_2-R_4-B_4$ -group ( $D_2$ ,  $R_4$  and  $B_4$  are as defined above);

3) a  $R_2-SO_2-NR_1$ -group ( $R_2$  is as defined above, provided that a hydrogen atom is excluded, and  $R_1$  is as defined above),

4) a (b)-group ((b) is as defined above);

5) a (c)-group ((c) is as defined above) or

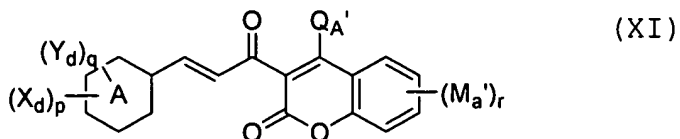
6) a  $R_1A_1N-NR_1'$ -group ( $R_1$ ,  $A_1$  and  $R_1'$  are as defined above);

V.  $M_a'$  is the same as or different from  $M_a$ , and has the same meaning as that of  $M_a$ , and  $r$  represents 0, 1, 2, 3 or 4, provided that when an A ring is a benzene ring, in case that  $q$  and  $r$  are 0, then  $p$  is 2, 2, 3 or 4; and

the "as defined above" in the same symbol between a plurality of substituent indicates that the plurality of the substituents independently represent the same meaning as that of described above and, between the plurality of substituents, a selection range of the selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range];

and an inert carrier;

**11. (Original)** A 2H-1-benzopyran-2-one compound represented by the formula (XI):



[wherein

I. A represents a benzene ring or a pyridine ring;

II. In  $(X_d)_p$ ,  $X_d$  is a substituent on a carbon atom, and represents a methoxy group or an ethoxy group,  $p$  represents 0, 1, 2, 3 or 4 and, when  $p$  is 2 or more,  $X_d$ 's are the same or different;

III. In  $(Y_d)_q$ ,  $Y_d$  is a substituent on a carbon atom, and represents a substituent of the following  $X_4$  group or  $Y_4$  group,  $q$  represents 0, 1, 2, 3, 4 or 5, when  $q$  is 2 or more,  $Y_d$ 's are the same or different and, when  $q$  is 2 or more, the adjacent two same or different  $Y_d$ 's constitute a group of a  $Z_4$  group, and may be fused with an A ring;

(1) a  $X_4$  group:

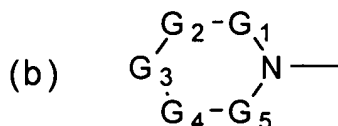
a  $M_a$ -group [ $M_a$  represents a  $R_b$ -group ( $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a  $R_c$ - $B_a$ - $R_d$ -group ( $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e$ -CO- $R_d$ -group ( $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e$ -CO-O- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_e$ O-CO- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a HO-CO-CH=CH-group, a  $R_eR_{e'}N$ - $R_d$ -group ( $R_e$  and  $R_{e'}$  are the same or different,  $R_e$  is as defined above,  $R_{e'}$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e$ -CO-N $R_{e'}$ - $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a  $R_b$ O-CO-N( $R_e$ )- $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_{e'}N$ -CO- $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a



$R_e R_e' N-CO-NR_e''-R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_e''$  are the same or different,  $R_e$  and  $R_e'$  are as defined above,  $R_e''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e R_e' N-C(=NR_e'')-NR_e'''-R_d$ -group ( $R_e$ ,  $R_e'$ ,  $R_e''$  and  $R_e'''$  are the same or different,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above,  $R_e'''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_b-SO_2-NR_e-R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_e R_e' N-SO_2-R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that when A represents a benzene ring, then a methoxy group and an ethoxy group are excluded;

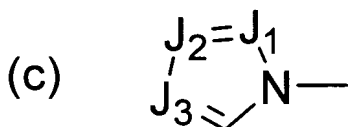
(2)  $Y_4$  group:

a  $M_b-R_d$ -group [ $M_b$  represents a  $M_c$ -group ( $M_c$  represents a  $M_d-R_d'$ -group ( $M_d$  represents a phenyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), a pyridyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a naphthyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or

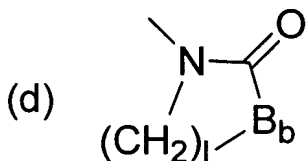


a (b)-group {in (b),  $G_1$ ,  $G_2$ ,  $G_4$  and  $G_5$  represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and  $G_3$  represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2-B_1$ -group ( $R_2$

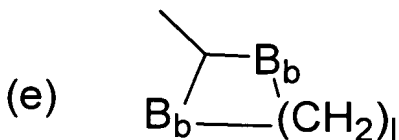
represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and B<sub>1</sub> represents an oxy group, a thio group, sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -NR<sub>1</sub>-group (R<sub>1</sub> is as defined above)},



a (c)-group (in (c), J<sub>1</sub>, J<sub>2</sub>, and J<sub>3</sub> are the same or different and, represent a methine group optionally substituted with a methyl group, or a nitrogen atom),



a (d)-group (l is 2, 3 or 4, and B<sub>b</sub> represents an oxy group or a thio group) or



an (e)-group (l and B<sub>b</sub> are as defined above), R<sub>d</sub>' is the same as or different from R<sub>d</sub>, and has the same meaning as that of R<sub>d</sub>}}, a M<sub>c</sub>-B<sub>a</sub>-group (M<sub>c</sub> and B<sub>a</sub> are as defined above), a M<sub>c</sub>-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>-CO-O-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>O-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>R<sub>e</sub>N-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>O-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-NR<sub>e</sub>'-group (M<sub>c</sub>, R<sub>e</sub>

and  $R_e'$  are as defined above), a  $M_cR_eN-C(=NR_e')-NR_e''$ -group ( $M_c$ ,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above), a  $M_c-SO_2-NR_e$ -group ( $M_c$  and  $R_e$  are as defined above) or a  $M_cR_eN-SO_2$ -group ( $M_c$  and  $R_e$  are as defined above), and  $R_d$  is as defined above];

(3) a  $Z_4$  group:

a  $-N=C(Y_a)-Y_a'$ -group ( $Y_a$  represents a hydrogen atom, or C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and  $Y_a'$  represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a  $-Y_b-Y_b'-Y_b''$ -group ( $Y_b$  and  $Y_b''$  are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group,  $Y_b'$  represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a  $-Y_c-O-Y_c'-O$ -group ( $Y_c$  and  $Y_c'$  are the same or different, and a C1-C10 alkylene group);

IV.  $Q_A'$  represents a (b)-group ((b) is as defined above), an  $A_9-B_6-BC$ -group [ $A_9$  represents a substituent of the following  $A_7$  group or  $A_8$  group,  $B_6$  represents a carbonyl group or a thiocarbonyl group,  $B_c$  represents an oxy group or a  $-N((O)_mR_1)$ -group ( $m$  represents 0 or 1, and  $R_1$  is as defined above), provided that when  $A_9$  is a hydrogen atom, then  $B_c$  is not a sulfonyl group], an  $A_7''-SO_2-B_c$ -group ( $A_7''$  represents a substituent of the following  $A_7''$  group, and  $B_c$  is as defined above), an  $A_8-SO_2-B_c$ -group ( $A_8$  represents a substituent of the following  $A_8$  group, and  $B_c$  is as defined above, provided that  $A_8$  is not a hydrogen atom), a  $R_1R_1'N-SO_2-B_c$ -group ( $R_1$  is as defined above,  $R_1'$  is the same as or different from  $R_1$ , and has the same meaning as that of  $R_1$ , and  $B_c$  is as defined above), a (b)- $SO_2-B_c$ -group ((b) and  $B_c$  are as defined

above), an  $A_9'$ - $B_c$ -group ( $A_9'$  represents a substituent of the following  $A_7'$  group or  $A_8'$  group, and  $B_c$  is as defined above), a  $D_5$ - $R_4$ - $B_c$ -group ( $D_5$  represents a substituent of the following  $D_5$  group,  $R_4$  represents a C1-C10 alkylene group, and  $B_c$  is as defined above), a  $M_c$ - $B_3$ - $B_c$ -group ( $B_3$  represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and  $M_c$  and  $B_c$  are as defined above) or a  $M_c$ - $B_c$ -group ( $M_c$  and  $B_c$  are as defined above);

(1) an  $A_7$  group :

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a  $R_2$ - $B_1$ - $R_4$ -group ( $R_2$  and  $B_1$  are as defined above, and  $R_4$  is as defined above), a  $D_4$ - $R_4$ -group ( $D_4$  represents a substituent of the following  $D_4$  group, and  $R_4$  is as defined above), a  $D_5$ - $R_4$ -group ( $D_5$  represents a substituent of the following  $D_5$  group, and  $R_4$  is as defined above), a  $D_1$ - $R_4$ -group ( $D_1$  represents a substituent of the following  $D_1$  group, and  $R_4$  is as defined above), a (b)- $R_4$ -group ((b) is as defined above, and  $R_4$  is as defined above), a (c)- $R_4$ -group ((c) is as defined above, and  $R_4$  is as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  represents a substituent of the following  $D_2$  group, and  $R_4$  is as defined above), a  $D_3$ - $R_4$ -group ( $D_3$  represents a substituent of the following  $D_3$  group, and  $R_4$  is as defined above), an  $A_4$ - $SO_2$ - $R_4$ -group ( $A_4$  represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a  $R_1R_1'$ -N-group ( $R_1$  and  $R_1'$  are as defined above), and  $R_4$  is as defined above) or an  $A_2$ -CO- $R_4$ -group ( $A_2$  represents a substituent of the following  $A_2$  group, and  $R_4$  is as defined above);

(2) an  $A_8$  group: a hydrogen atom, or C1-C10 alkyl group optionally substituted with a halogen atom;

(3) an  $A_7'$  group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a  $R_2-B_1-R_4'$ -group ( $R_2$  and  $B_1$  are as defined above, and  $R_4'$  represents a C2-C10 alkylene group), a  $D_4-R_4'$  group ( $D_4$  and  $R_4'$  are as defined above), a  $D_1-R_4'$ -group ( $D_1$  and  $R_4'$  are as defined above), a (b)- $R_4'$ -group ((b) and  $R_4'$  are as defined above), a (c)- $R_4'$ -group ((c) and  $R_4'$  are as defined above), a  $D_2-R_4$ -group ( $D_2$  and  $R_4$  are as defined above), a  $D_3-R_4'$ -group ( $D_3$  and  $R_4'$  are as defined above) or an  $A_2-CO-R_4$ -group ( $A_2$  and  $R_4$  are as defined above);

(4) an  $A_9'$  group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;

(5) an  $A_7''$  group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a  $R_2-B_1-R_4'$ -group ( $R_2$ ,  $B_1$  and  $R_4'$  are as defined above), a  $D_4-R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_5-R_4$ -group ( $D_5$  and  $R_4$  are as defined above), a  $D_1-R_4'$ -group ( $D_1$  and  $R_4'$  are as defined above), a (b)- $R_4'$ -group ((b) and  $R_4'$  are as defined above), a (c)- $R_4'$ -group ((c) and  $R_4'$  are as defined above), a  $D_2-R_4$ -group ( $D_2$  and  $R_4$  are as defined above), a  $NO_2-R_4$ -group ( $R_4$  is as defined above) or an  $A_2-CO-R_4$ -group ( $A_2$  and  $R_4$  are as defined above);

(i) a  $D_4$  group: a hydroxy group or an  $A_1-O$ -group [ $A_1$  represents a  $R_3-(CHR_0)_m-(B_2-B_3)_{m'}$ -group ( $R_3$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a  $R_2-B_1$ -group ( $R_2$  and  $B_1$  are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group,  $R_0$  represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group,  $m$  is as defined above,  $B_2$  represents a single bond, an oxy group, a thio

group or a  $-N((O)_nR_1')$ -group ( $R_1'$  is as defined above, and  $n$  represents 0 or 1),  $B_3$  is as defined above,  $m'$  represents 0 or 1 and, when  $B_3$  is a sulfonyl group, then  $m$  is 0, and  $R_3$  is not a hydrogen atom}}];

(ii) a  $D_5$  group: an  $O=C(R_3)$ -group ( $R_3$  is as defined above), an  $A_1-(O)_n-N=C(R_3)$ -group ( $A_1$ ,  $n$  and  $R_3$  are as defined above), a  $R_1-B_0-CO-R_4-(O)_n-N=C(R_3)$ -group [ $R_1$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above, and  $B_0$  represents an oxy group, a thio group or a  $-N((O)_mR_1')$ -group ( $R_1'$  and  $m$  are as defined above)], a  $D_2-R_4-(O)_n-N=C(R_3)$ -group ( $D_2$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above) or a  $R_1A_1N-N=C(R_3)$ -group ( $R_1$ ,  $A_1$  and  $R_3$  are as defined above);

(iii) a  $D_1$  group: a  $(R)-(O)_kA_1N-(O)_{k'}$ -group ( $R_1$  and  $A_1$  are as defined above, and  $k$  and  $k'$  are the same or different, and represent 0 or 1);

(iv) a  $D_2$  group: a cyano group, a  $R_1R_1'NC(=N-(O)_n-A_1)$ -group ( $R_1$ ,  $R_1'$ ,  $n$  and  $A_1$  are as defined above), an  $A_1N=C-(OR_2)$ -group ( $A_1$  and  $R_2$  are as defined above) or a  $NH_2-CS$ -group;

(v) a  $D_3$  group: a nitro group or a  $R_1OSO_2$ -group ( $R_1$  is as defined above);

(vi) an  $A_2$  group:

1) an  $A_3-B_4$ -group

[ $A_3$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a  $R_a-(R_4)_m$ -group ( $R_a$  represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and  $R_4$  and  $m$  are as defined above), or a C1-C10 alkyl group substituted with a (b)- $R_4$ -group ((b) and  $R_4$  are as defined above), a (c)- $R_4$ -

group ((c) and  $R_4$  are as defined above), a  $R_2$ - $B_1$ - $R_4$ -group ( $R_2$ ,  $B_1$  and  $R_4$  are as defined above), a  $D_4$ - $R_4$ -group ( $D_4$  and  $R_4$  are as defined above), a  $D_5$ -group ( $D_5$  is as defined above), a  $D_1$ - $R_4$ -group ( $D_1$  and  $R_4$  are as defined above), a  $D_2$ -group ( $D_2$  is as defined above), a  $D_3$ - $R_4$ -group ( $D_3$  and  $R_4$  are as defined above) or an  $A_4$ - $SO_2$ - $R_4$ -group ( $A_4$  is as defined above, and  $R_4$  is as defined above),

$B_4$  represents an oxy group, a thio group or a  $-N((O)_mR_1)-$  group ( $R_1$  and  $m$  are as defined above), provided that when  $B_4$  is a thio group,  $A_3$  is not a hydrogen atom];

2) a  $R_1$ - $B_4$ - $CO$ - $R_4$ - $B_4'$ -group ( $R_1$ ,  $B_4$  and  $R_4$  are as defined above,  $B_4'$  is the same as or different from  $B_4$ , and has the same meaning as that of  $B_4$ , provided that when  $B_4$  is a thio group,  $R_2$  is not a hydrogen atom), or a  $D_2$ - $R_4$ - $B_4$ -group ( $D_2$ ,  $R_4$  and  $B_4$  are as defined above);

3) a  $R_2$ - $SO_2$ - $NR_1$ -group ( $R_2$  is as defined above, provided that a hydrogen atom is excluded, and  $R_1$  is as defined above);

4) a (b)-group ((b) is as defined above);

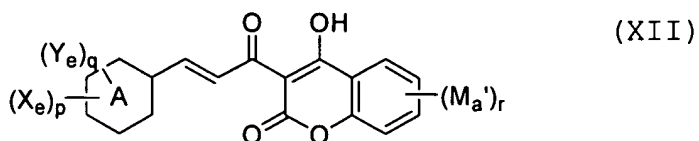
5) a (c)-group ((c) is as defined above) or

6) a  $R_1A_1N$ - $NR_1'$ -group ( $R_1$ ,  $A_1$  and  $R_1'$  are as defined above);

V.  $M_a'$  is the same as or different from  $M_a$ , and has the same meaning as that of  $M_a$ , and  $r$  represents 0, 1, 2, 3 or 4, provided that when an A ring is a benzene ring, in case that  $q$  is 0, then  $p$  is 2, 3 or 4; and

the "as defined above" between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range];

**12. (Original)** A 2H-1-benzopyran-2-one compound represented by the formula (XII):



[wherein

- I. A represents a benzene ring or a pyridine ring;
- II. In  $(X_e)_p$ ,  $X_e$  represents a hydroxy group, a halogen atom, a C1-C10 alkyl group, a  $R'-S(O)_l$ -group ( $R'$  represents a C1-C10 alkyl group, and  $l$  represents 0, 1 or 2), a cyano group, a  $HOCO-CH=CH$ -group, a  $(R')_2N$ -group ( $R'$  is as defined above), a  $R'CO-NH$ -group ( $R'$  is as defined above), a nitro group or a C1-C10 alkoxy group,  $p$  represents 0, 1, 2, 3 or 4 and, when  $p$  is 2 or more,  $X_d$ 's are the same or different;
- III. In  $(Y_e)_q$ ,  $Y_e$  is a substituent on a carbon atom, and represents a substituent of the following  $X_5$  group or  $Y_5$  group,  $q$  represents 0, 1, 2, 3, 4 or 5, when  $q$  is 2 or more,  $Y_e$ 's are the same or different and, when  $q$  is 2 or more, the adjacent two same or different  $Y_e$ 's constitute a group of a  $Z_5$  group, and may be fused with an A ring;

(1) a  $X_5$  group:

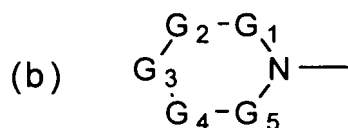
a  $M_a$ -group [ $M_a$  represents a  $R_b$ -group ( $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxyl group, a  $R_c-B_a-R_d$ -group ( $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e-CO-R_d$ -group ( $R_d$  represents a hydrogen atom, or a C1-C10 alkyl



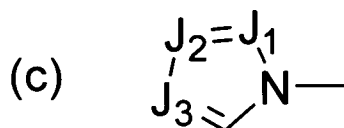
group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e$ -CO-O- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_e$ O-CO- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a HO-CO-CH=CH-group, a  $R_eR_{e'}N$ - $R_d$ -group ( $R_e$  and  $R_{e'}$  are the same or different,  $R_e$  is as defined above,  $R_{e'}$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e$ -CO-N $R_{e'}$ - $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a  $R_b$ O-CO-N( $R_e$ )- $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_{e'}N$ -CO- $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a  $R_eR_{e'}N$ -CO-N $R_{e''}$ - $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_{e''}$  are the same or different,  $R_e$  and  $R_{e'}$  are as defined above,  $R_{e''}$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_eR_{e'}N$ -C(=N $R_{e''}$ )-N $R_{e'''}$ - $R_d$ -group ( $R_e$ ,  $R_{e'}$ ,  $R_{e''}$  and  $R_{e'''}$  are the same or different,  $R_e$ ,  $R_{e'}$  and  $R_{e''}$  are as defined above,  $R_{e'''}$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_b$ -SO<sub>2</sub>-N $R_e$ - $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_{e'}N$ -SO<sub>2</sub>- $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a C<sub>2</sub>-C<sub>10</sub> alkenyl group or a C<sub>2</sub>-C<sub>10</sub> alkynyl group], provided that when A represents a benzene ring, then a  $X_e$ -group ( $X_e$  is as defined above) is excluded;

(2) a  $Y_5$  group:

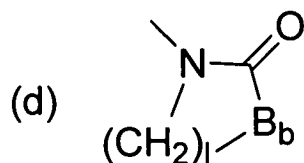
a  $M_b$ - $R_d$ -group [ $M_b$  represents a  $M_c$ -group ( $M_c$  represents a  $M_d$ - $R_d'$ -group ( $M_d$  represents a phenyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a pyridyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a naphthyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or



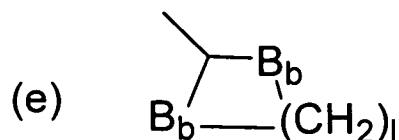
a (b)-group {in (b),  $G_1$ ,  $G_2$ ,  $G_4$  and  $G_5$  represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and  $G_3$  represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2$ - $B_1$ -group ( $R_2$  represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and  $B_1$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group)}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  is as defined above)},



a (c)-group (in (c),  $J_1$ ,  $J_2$  and  $J_3$  are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),



a (d)-group (l is 2, 3 or 4, and  $B_b$  represents an oxy group or a thio group) or



an (e)-group (l and B<sub>b</sub> are as defined above), R<sub>d</sub>' is the same as or different from R<sub>d</sub>, and has the same meaning as that of R<sub>d</sub>}}, a M<sub>c</sub>-B<sub>a</sub>-group (M<sub>c</sub> and B<sub>a</sub> are as defined above), a M<sub>c</sub>-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>-CO-O-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>O-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>R<sub>e</sub>N-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>O-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-NR<sub>e</sub>'-group (M<sub>c</sub>, R<sub>e</sub> and R<sub>e</sub>' are as defined above), a M<sub>c</sub>R<sub>e</sub>N-C(=NR<sub>e</sub>')-NR<sub>e</sub>-group (M<sub>c</sub>, R<sub>e</sub>, R<sub>e</sub>' and R<sub>e</sub>'' are as defined above), a M<sub>c</sub>-SO<sub>2</sub>-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above) or a M<sub>c</sub>R<sub>e</sub>N-SO<sub>2</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), and R<sub>d</sub> is as defined above];

(3) a Z<sub>5</sub> group:

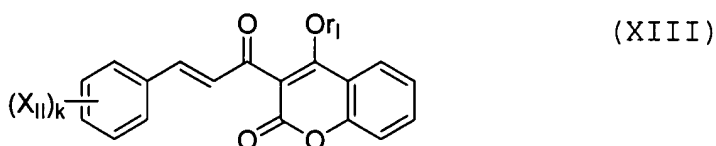
a -N=C(Y<sub>a</sub>)-Y<sub>a</sub>'-group (Y<sub>a</sub> represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y<sub>a</sub>' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a -Y<sub>b</sub>-Y<sub>b</sub>'-Y<sub>b</sub>''-group (Y<sub>b</sub> and Y<sub>b</sub>'' are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y<sub>b</sub>' represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a -Y<sub>c</sub>-O-Y<sub>c</sub>'-O-group (Y<sub>c</sub> and Y<sub>c</sub>' are the same or different, and represent a C1-C10 alkylene group), provided that when p is 0, then Y<sub>e</sub> is not fused with an A ring to form a benzo[1,3]dioxol ring;

IV. M<sub>a</sub>' is the same as or different from M<sub>a</sub>, and has the same meaning as that of M<sub>a</sub>, and r represents 0, 1, 2, 3 or

4, provided that when an A ring is a benzene ring, then q is not 0; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range];

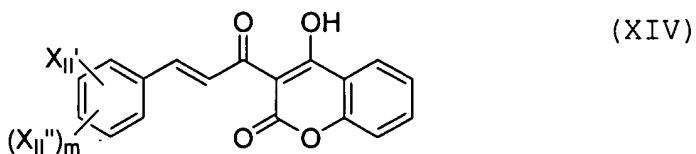
**13. (Original)** A 2H-1-benzopyran-2-one compound represented by the formula (XIII):



[wherein  $X_{II}$  represents a hydrogen atom, or a hydroxyl group, or a halogen atom, or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a C2-C4 alkenyl group, or a C2-C4 alkynyl group, or a C3-C4 alkoxy group, or a  $R_I-S(O)_1$ -group ( $R_I$  represents a C1-C4 alkyl group, and 1 represents an integer of 0 to 2), or a nitro group, or a cyano group, or a carboxy group, or a C1-C4 alkoxycarbonyl group, or a  $(R_I)_2N$ -group ( $R_I$  is as defined above), or a  $R_I-CO-N_I$ -group ( $R_I$  is as defined above), or a  $R_I O-CO-NH$ -group ( $R_I$  is as defined above), or a  $R_I NH-CO-NH$ -group ( $R_I$  is as defined above), or a  $(R_I')_2N-CO$ -group ( $R_I'$  represents a hydrogen atom or a C1-C4 alkyl group), or a  $RB$ -group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), k represents an integer of 1 to 4 and, when k is an

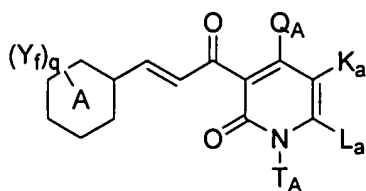
integer of 2 to 4,  $X_{II}$ 's may be different, and  $r_I$  represents a C1-C4 alkyl group, a C2-C4 alkenyl group or a C2-C4 alkynyl group];

**14. (Original)** A 2H-1-benzopyran-2-one compound represented by the formula (XIV):



[wherein  $X_{II}'$  represents a C1-C4 alkyl group substituted with a halogen atom or a C1-C4 alkoxy group, a C2-C4 alkenyl group, a C2-C4 alkynyl group, a C3-C4 alkoxy group, a  $R_{II}$ -S(O)<sub>1</sub>-group ( $R_{II}$  represents a C2-C4 alkyl group, and 1 represents an integer of 0 to 2), a cyano group, a carboxy group, a C<sub>1</sub>-C4 alkoxycarbonyl group, a ( $R_{II}$ )<sub>2</sub>N-group ( $R_{II}$  is as defined above), a  $R_I$ -CO-NH-group ( $R_I$  represents a C1-C4 alkyl group), a  $R_I$ O-CO-NH-group ( $R_I$  is as defined above), a  $R_I$ NH-CO-NH-group ( $R_I$  is as defined above), a ( $R_I'$ )<sub>2</sub>N-CO-group ( $R_I'$  represents a hydrogen atom or a C1-C4 alkyl group) or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom),  $X_{II}''$  represents a hydrogen atom, a halogen atom, a C1-C4 alkyl group or a C3-C4 alkoxy group, m represents 1 or 2 and, when m is 2,  $X_{II}''$ 's may be different];

**15. (Original)** A I type collagen gene transcription suppressing composition, which comprises a 2(1H)-pyridinone compound represented by the formula (XV):



(XV)

[wherein

I. A represents a benzene ring or a pyridine ring;

II. In  $(Y_f)_q$ ,  $Y_f$  is a substituent on a carbon atom, and represents a group of the following X group or Y group,  $q$  represents 0, 1, 2, 3, 4 or 5, when  $q$  is 2 or more,  $Y_f$ 's are the same or different and, when  $q$  is 2 or more, the adjacent two same or different  $Y_f$ 's constitutes a group of a Z group, and may be fused with an A ring;

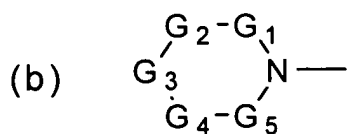
(1) a X group:

a  $M_a$ -group [ $M_a$  represents a  $R_b$ -group ( $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a  $R_c$ - $B_a$ - $R_d$ -group ( $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e$ -CO- $R_d$ -group ( $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e$ -CO-O- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_e$ O-CO- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a HO-CO-CH=CH-group, a  $R_eR_e'$ N- $R_d$ -group ( $R_e$  and  $R_e'$  are the same or different,  $R_e$  is as defined above,  $R_e'$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e$ -CO-N $R_e'$ - $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_b$ O-CO-N( $R_e$ )- $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'$ N-CO- $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a

$R_e R_e' N-CO-NR_e''-R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_e''$  are the same or different,  $R_e$  and  $R_e'$  are as defined above,  $R_e''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e R_e' N-C(=NR_e'')-NR_e'''-R_d$ -group ( $R_e$ ,  $R_e'$ ,  $R_e''$  and  $R_e'''$  are the same or different,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above,  $R_e'''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_b-SO_2-NR_e-R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_e R_e' N-SO_2-R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group];

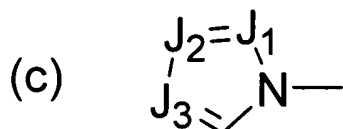
(2) a Y group:

a  $M_b-R_d$ -group [ $M_b$  represents a  $M_c$ -group ( $M_c$  represents a  $M_d-R_d'$ -group ( $M_d$  represents a phenyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a pyridyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a naphthyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or

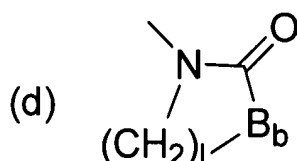


a (b)-group {in (b),  $G_1$ ,  $G_2$ ,  $G_4$  and  $G_5$  represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and  $G_3$  represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2-B_1$ -group ( $R_2$  represents a C1-C10 alkyl group, a C3-C10 alkenyl group or

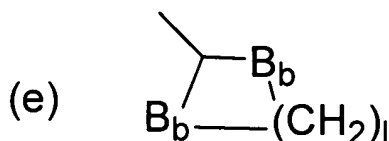
a C3-C10 alkynyl group, and B<sub>1</sub> represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a -NR<sub>1</sub>-group (R<sub>1</sub> is as defined above)),



a (c)-group (in (c), J<sub>1</sub>, J<sub>2</sub> and J<sub>3</sub> are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),



a (d)-group (l is 2, 3 or 4, and B<sub>b</sub> represents an oxy group or a thio group) or



an (e)-group (l and B<sub>b</sub> are as defined above), R<sub>d</sub>' is the same as or different from R<sub>d</sub>, and has the same meaning as that of R<sub>d</sub>}}, a M<sub>c</sub>-B<sub>a</sub>-group (M<sub>c</sub> and B<sub>a</sub> are as defined above), a M<sub>c</sub>-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>-CO-O-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>O-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>R<sub>e</sub>N-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>O-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-NR<sub>e</sub>'-group (M<sub>c</sub>, R<sub>e</sub> and R<sub>e</sub>' are as defined above), a M<sub>c</sub>R<sub>e</sub>N-C(=NR<sub>e</sub>')-NR<sub>e</sub>'-group



( $M_c$ ,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above), a  $M_c$ -SO<sub>2</sub>-NR<sub>e</sub>-group ( $M_c$  and  $R_e$  are as defined above) or a  $M_cR_eN$ -SO<sub>2</sub>-group ( $M_c$  and  $R_e$  are as defined above), and  $R_d$  is as defined above];

(3) a Z group: a -N=C( $Y_a$ )- $Y_a'$ -group ( $Y_a$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and  $Y_a'$  represents an imino group optionally substituted with an oxy group, or a thio group, or a C1-C10 alkyl group), a - $Y_b$ - $Y_b'$ - $Y_b''$ -group ( $Y_b$  and  $Y_b''$  are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and  $Y_b'$  represents a C1-C4alkylene group optionally substituted with a halogen atom, or a C1-C4alkylene group optionally having an oxo group), or a - $Y_c$ -O- $Y_c'$ -O-group ( $Y_c$  and  $Y_c'$  are the same or different, and represent a C1-C10 alkylene group);

III.  $Q_A$  represents a hydroxyl group, a (b)-group ((b) is as defined above), an  $A_9$ -B<sub>6</sub>-B<sub>c</sub>-group [ $A_9$  represents a substituent of the following  $A_7$  group or  $A_8$  group,  $B_6$  represents a carbonyl group or a thiocarbonyl group, and  $B_c$  represents an oxy group or a -N((O)<sub>m</sub>R<sub>1</sub>)-group (m represents 0 or 1, and  $R_1$  is as defined above), provided that when  $A_9$  is a hydrogen atom, then  $B_c$  is not a sulfonyl group], an  $A_7''$ -SO<sub>2</sub>-B<sub>c</sub>-group ( $A_7''$  represents a substituent of the following  $A_7''$  group, and  $B_c$  is as defined above), an  $A_8$ -SO<sub>2</sub>-B<sub>c</sub>-group ( $A_8$  represents a substituent of the following  $A_8$  group, and  $B_c$  is as defined above, provided that  $A_8$  is not a hydrogen atom), a  $R_1R_1'N$ -SO<sub>2</sub>-B<sub>c</sub> group ( $R_1$  is as defined above,  $R_1'$  is the same as or different of  $R_1$ , and has the same meaning of  $R_1$ , and  $B_c$  is as defined above), a (b)-SO<sub>2</sub>-B<sub>c</sub>-group ((b) and  $B_c$  are as defined above), an  $A_9'$ -B<sub>c</sub>-group

(A<sub>9</sub>' represents a substituent of the following A<sub>7</sub>' group or a A<sub>8</sub>' group, and B<sub>c</sub> is as defined above), a D<sub>5</sub>-R<sub>4</sub>-B<sub>c</sub>-group (D<sub>5</sub> represents a substituent of the following D<sub>5</sub> group, R<sub>4</sub> represents a C1-C10 alkylene group, and B<sub>c</sub> is as defined above), a M<sub>c</sub>-B<sub>3</sub>-B<sub>c</sub>-group (B<sub>3</sub> represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and M<sub>c</sub> and B<sub>c</sub> are as defined above) or a M<sub>c</sub>-B<sub>c</sub>-group (M<sub>c</sub> and B<sub>c</sub> are as defined above);

(1) an A<sub>7</sub> group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>-group (R<sub>2</sub> and B<sub>1</sub> are as defined above, and R<sub>4</sub> is as defined above), a D<sub>4</sub>-R<sub>4</sub>-group (D<sub>4</sub> represents a substituent of the following D<sub>4</sub> group, and R<sub>4</sub> is as defined above), a D<sub>5</sub>-R<sub>4</sub>-group (D<sub>5</sub> represents a substituent of the following D<sub>5</sub> group, and R<sub>4</sub> is as defined above), a D<sub>1</sub>-R<sub>4</sub>-group (D<sub>1</sub> represents a substituent of the following D<sub>1</sub> group, and R<sub>4</sub> is as defined above), a (b)-R<sub>4</sub>-group ((b) is as defined above, and R<sub>4</sub> is as defined above), a (c)-R<sub>4</sub>-group ((c) is as defined above, and R<sub>4</sub> is as defined above), a D<sub>2</sub>-R<sub>4</sub>-group (D<sub>2</sub> represents a substituent of the following D<sub>2</sub> group, and R<sub>4</sub> is as defined above), a D<sub>3</sub>-R<sub>4</sub>-group (D<sub>3</sub> represents a substituent of the following D<sub>3</sub> group, and R<sub>4</sub> is as defined above), an A<sub>4</sub>-SO<sub>2</sub>-R<sub>4</sub>-group (A<sub>4</sub> represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a R<sub>1</sub>R<sub>1</sub>'N-group (R<sub>1</sub> and R<sub>1</sub>' are as defined above), and R<sub>4</sub> is as defined above) or an A<sub>2</sub>-CO-R<sub>4</sub>-group (A<sub>2</sub> represents a substituent of the following A<sub>2</sub> group, and R<sub>4</sub> is as defined above);

(2) an A<sub>8</sub> group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;

(3) an A<sub>7</sub>' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>'-group (R<sub>2</sub> and B<sub>1</sub> are as defined above, and R<sub>4</sub>' represents a C2-C10 alkylene group), a D<sub>4</sub>-R<sub>4</sub>'-group (D<sub>4</sub> and R<sub>4</sub>' are as defined above), a D<sub>1</sub>-R<sub>4</sub>'-group (D<sub>1</sub> and R<sub>4</sub>' are as defined above), a (b)-R<sub>4</sub>'-group ((b) and R<sub>4</sub>' are as defined above), a (c)-R<sub>4</sub>'-group ((c) and R<sub>4</sub>' are as defined above), a D<sub>2</sub>-R<sub>4</sub>-group (D<sub>2</sub> and R<sub>4</sub> are as defined above), a D<sub>3</sub>-R<sub>4</sub>'-group (D<sub>3</sub> and R<sub>4</sub>' are as defined above) or an A<sub>2</sub>-CO-R<sub>4</sub>-group (A<sub>2</sub> and R<sub>4</sub> are as defined above);

(4) an A<sub>8</sub>' group: a C1-C10 alkyl group or a 2-C10 haloalkyl group;

(5) an A<sub>7</sub>'' group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>'-group (R<sub>2</sub>, B<sub>1</sub> and R<sub>4</sub>' are as defined above), a D<sub>4</sub>-R<sub>4</sub>'-group (D<sub>4</sub> and R<sub>4</sub>' are as defined above), a D<sub>5</sub>-R<sub>4</sub>-group (D<sub>5</sub> and R<sub>4</sub> are as defined above), a D<sub>1</sub>-R<sub>4</sub>'-group (D<sub>1</sub> and R<sub>4</sub>' are as defined above), a (b)-R<sub>4</sub>'-group ((b) and R<sub>4</sub>' are as defined above), a (c)-R<sub>4</sub>'-group ((c) and R<sub>4</sub>' are as defined above), a D<sub>2</sub>-R<sub>4</sub>-group (D<sub>2</sub> and R<sub>4</sub> are as defined above), a NO<sub>2</sub>-R<sub>4</sub>-group (R<sub>4</sub> is as defined above) or an A<sub>2</sub>-CO-R<sub>4</sub>-group (A<sub>2</sub> and R<sub>4</sub> are as defined above);

(i) a D<sub>4</sub> group: a hydroxy group or an A<sub>1</sub>-O-group [A<sub>1</sub> represents a R<sub>3</sub>-(CHR<sub>0</sub>)<sub>m</sub>-(B<sub>2</sub>-B<sub>3</sub>)<sub>m'</sub>-group {R<sub>3</sub> represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom or a R<sub>2</sub>-B<sub>1</sub>-group (R<sub>2</sub> and B<sub>1</sub> are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group, R<sub>0</sub> represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group, m is as defined above, B<sub>2</sub> represents a single bond, an oxy group, a thio

group or a  $-N((O)_nR_1')$ -group ( $R_1'$  is as defined above, and  $n$  represents 0 or 1),  $B_3$  is as defined above,  $m'$  represents 0 or 1 and, when  $B_3$  is a sulfonyl group, then  $m$  is 0, and  $R_3$  is not a hydrogen atom}}];

(ii) a  $D_5$  group: an  $O=C(R_3)$ -group ( $R_3$  is as defined above), an  $A_1-(O)_n-N=C(R_3)$ -group ( $A_1$ ,  $n$  and  $R_3$  are as defined above), a  $R_1-B_0-CO-R_4-(O)_n-N=C(R_3)$ -group [ $R_1$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above, and  $B_0$  represents an oxy group, a thio group or a  $-N((O)_mR_1')$ -group ( $R_1'$  and  $m$  are as defined above)], a  $D_2-R_4-(O)_n-N=C(R_3)$ -group ( $D_2$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above) or a  $R_1A_1N-N=C(R_3)$ -group ( $R_1$ ,  $A_1$  and  $R_3$  are as defined above);

(iii) a  $D_1$  group: a  $(R_1-(O)_k)A_1N-(O)_{k'}$ -group ( $R_1$  and  $A_1$  are as defined above, and  $k$  and  $k'$  are the same or different, and represent 0 or 1);

(iv) a  $D_2$  group: a cyano group, a  $R_1R_1'NC(=N-(O)_n-A_1)$ -group ( $R_1$ ,  $R_1'$ ,  $n$  and  $A_1$  are as defined above), an  $A_1N=C(-OR_2)$ -group ( $A_1$  and  $R_2$  are as defined above) or a  $NH_2-CS$ -group;

(v) a  $D_3$  group: a nitro group or a  $R_1OSO_2$ -group ( $R_1$  is as defined above);

(vi) an  $A_2$  group:

1) an  $A_3-B_4$ -group

[ $A_3$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a  $R_a-(R_4)_m$ -group ( $R_a$  represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and  $R_4$  and  $m$  are as defined above), or a C1-C10 alkyl group substituted with a (b)- $R_4$ -group ((b) and  $R_4$  are as defined above), a (c)- $R_4$ -

group ((c) and  $R_4$  are as defined above)], a  $R_2$ - $B_1$ - $R_4$ -group ( $R_2$ ,  $B_1$  and  $R_4$  are as defined above), a  $D_4$ - $R_4$ -group ( $D_4$  and  $R_4$  are as defined above), a  $D_5$ -group ( $D_5$  is as defined above), a  $D_1$ - $R_4$ -group ( $D_1$  and  $R_4$  are as defined above), a  $D_2$ -group ( $D_2$  is as defined above), a  $D_3$ - $R_4$ -group ( $D_3$  and  $R_4$  are as defined above) or an  $A_4$ - $SO_2$ - $R_4$ -group ( $A_4$  is as defined above, and  $R_4$  is as defined above),

$B_4$  represents an oxy group, a thio group, or a -  
 $N((O)_mR_1)$ -group ( $R_1$  and  $m$  are as defined above), provided that when  $B_4$  is a thio group, then  $A_3$  is not a hydrogen atom];

2) a  $R_1$ - $B_4$ - $CO$ - $R_4$ - $B_4'$ -group ( $R_1$ ,  $B_4$  and  $R_4$  are as defined above,  $B_4'$  is the same as or different from  $R_4$ , and has the same meaning as that of  $B_4$ , provided that when  $R_4$  is a thio group, then  $R_2$  is not a hydrogen atom) or a  $D_2$ - $R_4$ - $B_4$ -group ( $D_2$ ,  $R_4$  and  $B_4$  are as defined above);

3) a  $R_2$ - $SO_2$ - $NR_1$ -group ( $R_2$  is as defined above, provided that a hydrogen atom is excluded, and  $R_1$  is as defined above);

4) a (b)-group ((b) is as defined above);

5) a (c)-group ((c) is as defined above) or

6) a  $R_1A_1N$ - $NR_1'$ -group ( $R_1$ ,  $A_1$  and  $R_1'$  are as defined above);

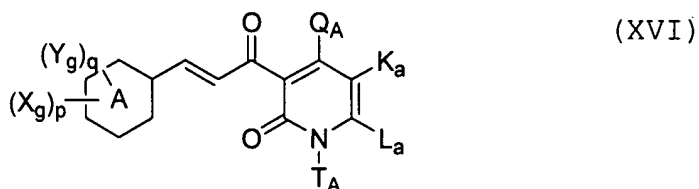
IV.  $T_A$  represents a hydrogen atom, an  $A_9'$ -group ( $A_9'$  is as defined above), a  $D_5$ - $R_4$ -group ( $D_5$  and  $R_4$  are as defined above) or a  $M_c$ -group ( $M_c$  is as defined above);

V.  $K_a$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group,  $L_a$  represents a hydrogen atom, a C1-C10 alkyl group or a  $M_b$ -group ( $M_b$  is as defined above) or a  $K_a$  and  $L_a$  may form a C1-C10 alkylene group; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of

substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range]; and an inert carrier;

**16. (Original)** A 2(1H)-pyridinone compound represented by the formula (XVI):



[wherein

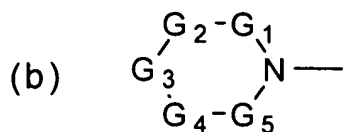
- I. A represents a benzene ring or a pyridine ring;
- II. In  $(X_g)_p$ ,  $X_g$  represents a hydroxyl group, a halogen atom, a  $(R')_2N$ -group ( $R'$  represents a C1-C10 alkyl group), a nitro group or a C1-C10 alkoxy group,  $p$  represents 0, 1, 2, 3 or 4 and, when  $p$  is 2 or more,  $X_g$ 's are the same or different;
- III. In  $(Y_g)_q$ ,  $Y_g$  is a substituent on a carbon atom, and represents a group of the following  $X_6$  group or  $Y_6$  group,  $q$  represents 0, 1, 2, 3, 4 or 5, when  $q$  is 2 or more,  $Y_g$ 's are the same or different and, when  $q$  is 2 or more, the adjacent two same or different  $Y_g$ 's constitutes a group of a  $Z_6$  group, and may be fused with an A ring;
  - (1) a  $X_6$  group:
 

a  $M_a$ -group [ $M_a$  represents a  $R_b$ -group ( $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxyl group, a  $R_c$ - $B_a$ - $R_d$ -group ( $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an

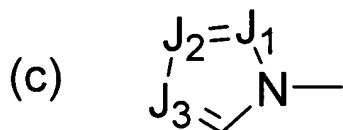
oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e-CO-R_d$ -group ( $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e-CO-O-R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_eO-CO-R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $HO-CO-CH=CH$ -group, a  $R_eR_e'N-R_d$ -group ( $R_e$  and  $R_e'$  are the same or different,  $R_e$  is as defined above,  $R_e'$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e-CO-NR_e'-R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_bO-CO-N(R_e)-R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'N-CO-R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_eR_e'N-CO-NR_e''-R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_e''$  are the same or different,  $R_e$  and  $R_e'$  are as defined above,  $R_e''$  has the same meaning as that of a  $R_e$ , and  $R_d$  is as defined above), a  $R_eR_e'N-C(=NR_e'')-NR_e'''-R_d$ -group ( $R_e$ ,  $R_e'$ ,  $R_e''$  and  $R_e'''$  are the same or different,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above,  $R_e'''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_b-SO_2-NR_e-R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'N-SO_2-R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that when A represents a benzene ring, then a  $X_g$ -group ( $X_g$  is as defined above) is excluded;

(2) a  $Y_6$  group:

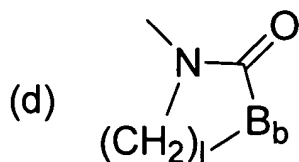
a  $M_b-R_d$ -group [ $M_b$  represents a  $M_c$ -group ( $M_c$  represents a  $M_d-R_d'$ -group ( $M_d$  represents a phenyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a pyridyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a naphthyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or



a (b)-group {in (b),  $G_1$ ,  $G_2$ ,  $G_4$  and  $G_5$  represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond and may be substituted with a methyl group, and  $G_3$  represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2-B_1$ -group ( $R_2$  represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and  $B_1$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group)}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  is as defined above)},



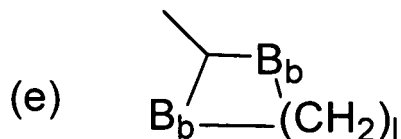
a (c)-group (in (c),  $J_1$ ,  $J_2$  and  $J_3$  are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),





a (d)-group (l is 2, 3 or 4, and B<sub>b</sub> represents an oxy group or a thio group)

or



an (e)-group (l and B<sub>b</sub> are as defined above), R<sub>d</sub>' is the same as or different from R<sub>d</sub>, and has the same meaning as that of R<sub>d</sub>}}, a M<sub>c</sub>-B<sub>a</sub>-group (M<sub>c</sub> and B<sub>a</sub> are as defined above), a M<sub>c</sub>-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>-CO-O-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>O-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>R<sub>e</sub>N-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>O-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-NR<sub>e</sub>'-group (M<sub>c</sub>, R<sub>e</sub> and R<sub>e</sub>' are as defined above), a M<sub>c</sub>R<sub>e</sub>N-C(=NR<sub>e</sub>')-NR<sub>e</sub>''-group (M<sub>c</sub>, R<sub>e</sub>, R<sub>e</sub>' and R<sub>e</sub>'' are as defined above), a M<sub>c</sub>-SO<sub>2</sub>-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above) or a M<sub>c</sub>R<sub>e</sub>N-SO<sub>2</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), and R<sub>d</sub> is as defined above];

(3) a Z<sub>6</sub> group:

a -N=C(Y<sub>a</sub>)-Y<sub>a</sub>'-group (Y<sub>a</sub> represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y<sub>a</sub>' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a -Y<sub>b</sub>-Y<sub>b</sub>'-Y<sub>b</sub>''-group (Y<sub>b</sub> and Y<sub>b</sub>'' are the same or different, a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y<sub>b</sub>' represents a C1-C4alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a -Y<sub>c</sub>-O-Y<sub>c</sub>'-O-group (Y<sub>c</sub>

and  $Y_c'$  are the same or different, and represent a C1-C10 alkylene group);

IV.  $Q_A$  represents a hydroxyl group, a (b)-group ((b) is as defined above), an  $A_9-B_6-B_c$ -group [ $A_9$  represents a substituent of the following  $A_7$  group or  $A_8$  group,  $B_6$  represents a carbonyl group or a thiocarbonyl group, and  $B_c$  represents an oxy group or a  $-N((O)_mR_1)$ -group ( $m$  represents 0 or 1, and  $R_1$  is as defined above), provided that when  $A_9$  is a hydrogen atom, then  $B_c$  is not a sulfonyl group], an  $A_7''-SO_2-B_c$ -group ( $A_7''$  represents a substituent of the following  $A_7''$  group, and  $B_c$  is as defined above), an  $A_8-SO_2-B_c$ -group ( $A_8$  represents a substituent of the following  $A_8$  group,  $B_1$  is as defined above, provided that  $A_8$  is not a hydrogen atom), a  $R_1R_1'N-SO_2-B_c$ -group ( $R_1$  is as defined above,  $R_1'$  is the same as or different from  $R_1$ , and has the same meaning as that of  $R_1$ , and  $B_c$  is as defined above), a (b)- $SO_2-B_c$ -group ((b) and  $B_c$  are as defined above), an  $A_9'-B_c$ -group ( $A_9'$  represents a substituent of the following  $A_7'$  group or  $A_8'$  group, and  $B_c$  is as defined above), a  $D_5-R_4-B_c$ -group ( $D_5$  represents a substituent of the following  $D_5$  group,  $R_4$  represents a C1-C10 alkylene group, and  $B_c$  is as defined above), a  $M_c-B_3-B_c$ -group ( $B_3$  represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and  $M_c$  and  $B_c$  are as defined above), or a  $M_c-B_c$ -group ( $M_c$  and  $B_c$  are as defined above);

(1) an  $A_7$  group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a  $R_2-B_1-R_4$ -group ( $R_2$  and  $B_1$  are as defined above, and  $R_4$  is as defined above), a  $D_4-R_4$ -group ( $D_4$  represents a substituent of the following  $D_4$  group, and  $R_4$  is as defined above), a  $D_5-R_4$ -group ( $D_5$  represents a substituent of the

following D<sub>5</sub> group, and R<sub>4</sub> is as defined above), a D<sub>1</sub>-R<sub>4</sub>-group {D<sub>1</sub> represents a substituent of the following D<sub>1</sub> group, and R<sub>4</sub> is as defined above}, a (b)-R<sub>4</sub>-group ((b) is as defined above, and R<sub>4</sub> is as defined above), a (c)-R<sub>4</sub>-group ((c) is as defined above, and R<sub>4</sub> is as defined above), a D<sub>2</sub>-R<sub>4</sub>-group {D<sub>2</sub> represents a substituent of the following D<sub>2</sub> group, and R<sub>4</sub> is as defined above}, a D<sub>3</sub>-R<sub>4</sub>-group {D<sub>3</sub> represents a substituent of the following D<sub>3</sub> group, and R<sub>4</sub> is as defined above}, an A<sub>4</sub>-SO<sub>2</sub>-R<sub>4</sub>-group {A<sub>4</sub> represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a R<sub>1</sub>R<sub>1</sub>'N-group (R<sub>1</sub> and R<sub>1</sub>' are as defined above), and R<sub>4</sub> is as defined above} or an A<sub>2</sub>-CO-R<sub>4</sub> group (A<sub>2</sub> represents a substituent of the following A<sub>2</sub> group, and R<sub>4</sub> is as defined above);

(2) an A<sub>8</sub> group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;

(3) an A<sub>7</sub>' group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>'-group (R<sub>2</sub> and B<sub>1</sub> are as defined above, and R<sub>4</sub>' represents a C2-C10 alkylene group), a D<sub>4</sub>-R<sub>4</sub>'-group (D<sub>4</sub> and R<sub>4</sub>' are as defined above), a D<sub>1</sub>-R<sub>4</sub>'-group (D<sub>1</sub> and R<sub>4</sub>' are as defined above), a (b)-R<sub>4</sub>'-group ((b) and R<sub>4</sub>' are as defined above), a (c)-R<sub>4</sub>'-group ((c) and R<sub>4</sub>' are as defined above), a D<sub>2</sub>-R<sub>4</sub>-group (D<sub>2</sub> and R<sub>4</sub> are as defined above), a D<sub>3</sub>-R<sub>4</sub>'-group (D<sub>3</sub> and R<sub>4</sub>' are as defined above), and an A<sub>2</sub>-CO-R<sub>4</sub>-group (A<sub>2</sub> and R<sub>4</sub> are as defined above);

(4) an A<sub>8</sub>' group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;

(5) an A<sub>7</sub>'' group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a R<sub>2</sub>-B<sub>1</sub>-

$R_4'$ -group ( $R_2$ ,  $B_1$  and  $R_4'$  are as defined above), a  $D_4$ - $R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_5$ - $R_4$ -group ( $D_5$  and  $R_4$  are as defined above), a  $D_1$ - $R_4'$ -group ( $D_1$  and  $R_4'$  are as defined above), a (b)- $R_4'$ -group ((b) and  $R_4'$  are as defined above), a (c)- $R_4'$ -group ((c) and  $R_4'$  are as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  and  $R_4$  are as defined above), a  $NO_2$ - $R_4$ -group ( $R_4$  is as defined above) or an  $A_2$ -CO- $R_4$ -group ( $A_2$  and  $R_4$  are as defined above);

(i) a  $D_4$  group: a hydroxyl group or an  $A_1$ -O-group [ $A_1$  represents a  $R_3$ -(CHR<sub>0</sub>)<sub>m</sub>-(B<sub>2</sub>-B<sub>3</sub>)<sub>m'</sub>-group ( $R_3$  represents a hydrogen atom, or a C1-10 alkyl group optionally substituted with a halogen atom or a  $R_2$ -B<sub>1</sub>-group ( $R_2$  and  $B_1$  are as defined above), or a C1-C10 alkenyl group, or a C2-C10 alkynyl group,  $R_0$  represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group,  $m$  is as defined above,  $B_2$  represents a single bond, an oxy group, a thio group or a -N((O)<sub>n</sub>R<sub>1</sub>')- group ( $R_1'$  is as defined above, and  $n$  represents 0 or 1),  $B_3$  is as defined above,  $m'$  represents 0 or 1 and, when  $B_3$  is a sulfonyl group,  $m$  is 0, and  $R_3$  is not a hydrogen atom)];

(ii) a  $D_5$  group: an O=C( $R_3$ )-group ( $R_3$  is as defined above), an  $A_1$ -(O)<sub>n</sub>-N=C( $R_3$ )-group ( $A_1$ ,  $n$  and  $R_3$  are as defined above), a  $R_1$ -B<sub>0</sub>-CO- $R_4$ -(O)<sub>n</sub>-N=C( $R_3$ )-group [ $R_1$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above, and  $B_0$  represents an oxy group, a thio group or a -N((O)<sub>m</sub>R<sub>1</sub>')-group ( $R_1'$  and  $m$  are as defined above)], a  $D_2$ - $R_4$ -(O)<sub>n</sub>-N=C( $R_3$ )-group ( $D_2$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above) or a  $R_1A_1N$ -N=C( $R_3$ )-group ( $R_1$ ,  $A_1$  and  $R_3$  are as defined above);

(iii) a  $D_1$  group: a ( $R_1$ -(O)<sub>k</sub>-) $A_1N$ -(O)<sub>k'</sub>-group ( $R_1$  and  $A_1$  are as defined above, and  $k$  and  $k'$  are the same or different, and represent 0 or 1);

(iv) a  $D_2$  group: a cyano group, a  $R_1R_1'NC(=N-(O)_n-A_1)$ -group ( $R_1$ ,  $R_1'$ ,  $n$  and  $A_1$  are as defined above), an  $A_1N=C(-OR_2)$ -group ( $A_1$  and  $R_2$  are as defined above) or a  $NH_2-CS$ -group;

(v) a  $D_3$  group: a nitro group or a  $R_1OSO_2$ -group ( $R_1$  is as defined above);

(vi) an  $A_2$  group:

1) an  $A_3-B_4$ -group

[ $A_3$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a  $R_a-(R_4)_m$ -group ( $R_a$  represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group a C1-C10 alkoxy group or a nitro group, and  $R_4$  and  $m$  are as defined above), or a C1-C10 alkyl group substituted with a (b)- $R_4$ -group ((b) and  $R_4$  are as defined above), a (c)- $R_4$ -group ((c) and  $R_4$  are as defined above), a  $R_2-B_1-R_4$ -group ( $R_2$ ,  $B_1$  and  $R_4$  are as defined above), a  $D_4-R_4$ -group ( $D_4$  and  $R_4$  are as defined above), a  $D_5$ -group ( $D_5$  is as defined above), a  $D_1-R_4$ -group ( $D_1$  and  $R_4$  are as defined above), a  $D_2$ -group ( $D_2$  is as defined above), a  $D_3-R_4$ -group ( $D_3$  and  $R_4$  are as defined above) or an  $A_4-SO_2-R_4$ -group ( $A_4$  is as defined above, and  $R_4$  is as defined above),

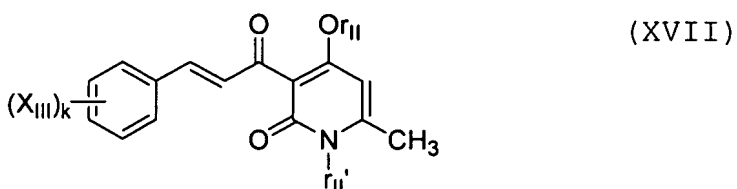
$B_4$  represents an oxy group, a thio group or a  $-N((O)_mR_1)$ -group ( $R_1$  and  $m$  are as defined above), provided that when  $B_4$  is a thio group, then  $A_3$  is not a hydrogen atom];

2) a  $R_1-B_4-CO-R_4-B_4'$ -group ( $R_1$ ,  $B_4$  and  $R_4$  are as defined above,  $B_4'$  is the same as or different from  $B_4$ , and has the same meaning as that of  $B_4$ , provided that when  $B_4$  is a thio group, then  $R_2$  is not a hydrogen atom) or a  $D_2-R_4-B_4$ -group ( $D_2$ ,  $R_4$  and  $B_4$  are as defined above);

3) a  $R_2$ -SO<sub>2</sub>-NR<sub>1</sub>-group ( $R_2$  is as defined above, provided that a hydrogen atom is excluded, and  $R_1$  is as defined above);  
 4) a (b)-group ((b) is as defined above);  
 5) a (c)-group ((c) is as defined above) or  
 6) a  $R_1A_1N$ -NR<sub>1</sub>'-group ( $R_1$ ,  $A_1$  and  $R_1'$  are as defined above);  
 V.  $T_A$  represents a hydrogen atom, an  $A_9'$ -group ( $A_9'$  is as defined above), a  $D_5$ -R<sub>4</sub>-group ( $D_5$  and  $R_4$  are as defined above) or a  $M_c$ -group ( $m_c$  is as defined above);  
 VI.  $K_a$  represents a hydrogen atom, a halogen atom or a C1-C10 alkyl group,  $L_a$  represents a hydrogen atom, a C1-C10 alkyl group or a  $M_b$ -group ( $M_b$  is as defined above), or  $K_a$  and  $L_a$  may form a C1-C10 alkylene group, provided that when an A ring is a benzene ring, then q is not 0; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range];

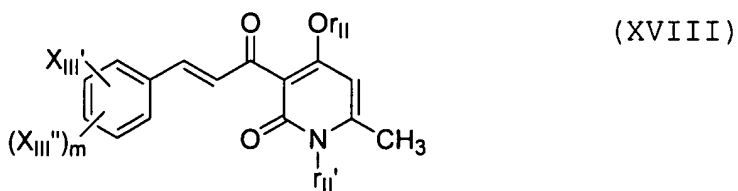
**17. (Original)** A I type collagen gene transcription suppressing composition, which comprises a 2 (1H)-pyridinone compound represented by the formula (XVII):



[wherein XIII represents a hydrogen atom, or a hydroxy group, or a halogen atom, or a C1-C4 alkyl group optionally

substituted with a halogen atom or a C1-C4 alkoxy group, or a C2-C4 alkenyl group, or a C2-C4 alkynyl group, or a C1-C4 alkoxy group, or a  $R_I-S(O)_1$ -group ( $R_I$  represents a C1-C4 alkyl group, and 1 represents an integer of 0 to 2), or a nitro group, or a cyano group, or a carboxy group, or a C1-C4 alkoxy carbonyl group, or a  $(R_I)_2N$ -group ( $R_I$  is as defined above), or a  $R_I-CO-NH$ -group ( $R_I$  is as defined above), or a  $R_I O-CO-NH$ -group ( $R_I$  is as defined above), or a  $R_I NH-CO-NH$ -group ( $R_I$  is as defined above), or a  $(R_I')_2N-CO$ -group ( $R_I'$  represents a hydrogen atom or a C1-C4 alkyl group) or a  $RB$ -group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), K represents an integer of 1 to 4, when k is an integer of 2 to 4,  $X_{III}$ 's may be different,  $r_{II}$  and  $r_{II}'$  are the same or different, and represent a hydrogen atom or a C1-C4 alkyl group];  
and an inert carrier;

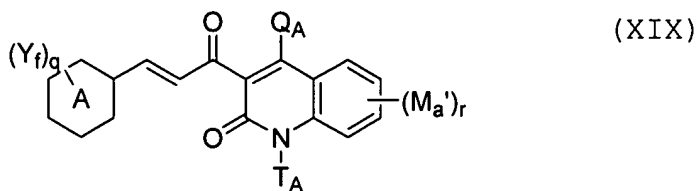
**18. (Original)** A 2(1H)-pyridinone compound represented by the formula (XVIII):



[wherein  $X_{III}'$  represents a C2-C4 alkyl group, or a C1-C4 alkyl group substituted with a halogen atom or a C1-C4 alkoxy group, or a C2-C4 alkenyl group, or a C2-C4 alkynyl group, or a C2-C4 alkoxy group, or a  $R_I-S(O)_1$ -group ( $R_I$  represents a C1-C4 alkyl group, and 1 represents an integer of 0 to 2), or a cyano group, or a carboxy group, or a C1-

C4 alkoxy carbonyl group, a  $(R_{II})_2N$ -group ( $R_{II}$  represents a C2-C4 alkyl group), or a  $R_I$ -CO-NH-group ( $R_I$  is as defined above), or a  $R_I$ O-CO-NH-group ( $R_I$  is as defined above), or a  $R_I$ NH-CO-NH-group ( $R_I$  is as defined above), or a  $(R_I')_2N$ -CO-group ( $R_I'$  represents a hydrogen atom or a C1-C4 alkyl group), or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom),  $X_{III}''$  represents a hydrogen atom, a halogen atom, a C1-C4 alkyl group, or a C1-C4 alkoxy group, m represents 1 or 2, when m is 2,  $X_{III}''$ 's may be different, and  $r_{II}$  and  $r_{II}'$  are the same or different, and represent a hydrogen atom or a C1-C4 alkyl group];

**19. (Original)** A I type collagen gene transcription suppressing composition, which comprises a 2(1H)-quinolinone compound represented by the formula (XIX):



[wherein

- I. A represents a benzene ring or a pyridine ring;
  - II. In  $(Y_f)_q$ ,  $Y_f$  is a substituent on a carbon atom, and represents a group of the following X group or Y group, q represents 0, 1, 2, 3, 4 or 5, when q is 2 or more,  $Y_f$ 's are the same or different and, when q is 2 or more, the adjacent two same or different  $Y_f$ 's constitute a group of a Z group, and may be fused with an A ring;
- (1) a X group:

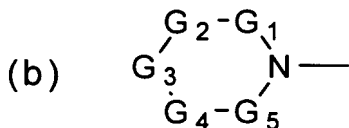


a  $M_a$ -group [ $M_a$  represents a  $R_b$ -group ( $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxyl group, a  $R_c$ - $B_a$ - $R_d$ -group ( $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e$ -CO- $R_d$ -group ( $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e$ -CO-O- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_eO$ -CO- $R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a HO-CO-CH=CH-group, a  $R_eR_{e'}N$ - $R_d$ -group ( $R_e$  and  $R_{e'}$  are the same or different,  $R_e$  is as defined above,  $R_{e'}$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e$ -CO-N $R_{e'}$ - $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a  $R_bO$ -CO-N( $R_e$ )- $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_{e'}N$ -CO- $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a  $R_eR_{e'}N$ -CO-N $R_{e''}$ - $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_{e''}$  are the same or different,  $R_e$  and  $R_{e'}$  are as defined above,  $R_{e''}$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_eR_{e'}N$ -C(=N $R_{e''}$ )-N $R_{e'''}$ - $R_d$ -group ( $R_e$ ,  $R_{e'}$ ,  $R_{e''}$  and  $R_{e'''}$  are the same or different,  $R_e$ ,  $R_{e'}$  and  $R_{e''}$  are as defined above,  $R_{e'''}$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_b$ -SO<sub>2</sub>-N $R_e$ - $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_{e'}N$ -SO<sub>2</sub>- $R_d$ -group ( $R_e$ ,  $R_{e'}$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group];

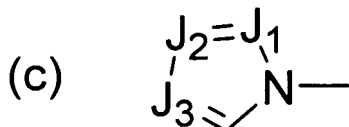
(2) a Y group:

a  $M_b$ - $R_d$ -group [ $M_b$  represents a  $M_c$ -group ( $M_c$  represents a  $M_d$ - $R_d'$ -group ( $M_d$  represents a phenyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a pyridyl group optionally substituted with a  $M_a$ -group ( $M_a$  is

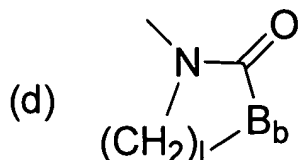
as defined above), or a naphthyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or



a (b)-group {in (b),  $G_1$ ,  $G_2$ ,  $G_4$  and  $G_5$  represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and  $G_3$  represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2$ - $B_1$ -group ( $R_2$  represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and  $B_1$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group)}, or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  is as defined above)},

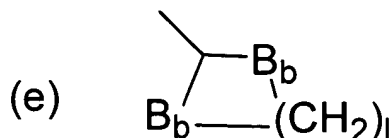


a (c)-group (in (c),  $J_1$ ,  $J_2$  and  $J_3$  are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),



a (d)-group (l is 2, 3 or 4, and B<sub>b</sub> represents an oxy group or a thio group)

or



an (e)-group (l and B<sub>b</sub> are as defined above), R<sub>d</sub>' is the same as or different from R<sub>d</sub>, and has the same meaning as that of R<sub>d</sub>}}, a M<sub>c</sub>-B<sub>a</sub>-group (M<sub>c</sub> and B<sub>a</sub> are as defined above), a M<sub>c</sub>-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>-CO-O-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>O-CO-group (M<sub>c</sub> is as defined above), a M<sub>c</sub>R<sub>e</sub>N-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>O-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-NR<sub>e</sub>'-group (M<sub>c</sub>, R<sub>e</sub> and R<sub>e</sub>' are as defined above), a M<sub>c</sub>R<sub>e</sub>N-C(=NR<sub>e</sub>')-NR<sub>e</sub>''-group (M<sub>c</sub>, R<sub>e</sub>, R<sub>e</sub>' and R<sub>e</sub>'' are as defined above), a M<sub>c</sub>-SO<sub>2</sub>-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above) or a M<sub>c</sub>R<sub>e</sub>N-SO<sub>2</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), and R<sub>d</sub> is as defined above];

(3) a Z group:

a -N=C(Y<sub>a</sub>)-Y<sub>a</sub>'-group (Y<sub>a</sub> represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y<sub>a</sub>' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a -Y<sub>b</sub>-Y<sub>b</sub>'-Y<sub>b</sub>''-group (Y<sub>b</sub> and Y<sub>b</sub>' are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted

with a C1-C10 alkyl group, and  $Y_b'$  represents a C1-C4 alkylene group optionally substituted with a halogen atom, or a C1-C4 alkylene group optionally having an oxo group) or a  $-Y_c-O-Y_c'-O$ -group ( $Y_c$  and  $Y_c'$  are the same or different, and represent a C1-C10 alkylene group);

III.  $Q_A$  represents a hydroxy group, a (b)-group ((b) is as defined above), an  $A_9-B_6-B_c$ -group [ $A_9$  represents a substituent of the following  $A_7$  group or  $A_8$  group,  $B_6$  represents a carbonyl group or a thiocarbonyl group, and  $B_c$  represents an oxy group or a  $-N((O)_mR_1)$ -group ( $m$  represents 0 or 1, and  $R_1$  is as defined above), provided that when  $A_9$  is a hydrogen atom, then  $B_c$  is not a sulfonyl group], an  $A_7''-SO_2-B_c$ -group ( $A_7''$  represents a substituent of the following  $A_7''$  group, and  $B_c$  is as defined above), an  $A_8-SO_2-B_c$ -group ( $A_8$  represents a substituent of the following  $A_8$  group, and  $B_c$  is as defined above, provided that  $A_8$  is not a hydrogen atom), a  $R_1R_1'N-SO_2-B_c$ -group ( $R_1$  is as defined above,  $R_1'$  is the same as or different from  $R_1$ , and has the same meaning as that of  $R_1$ , and  $B_c$  is as defined above), a (b)- $SO_2-B_c$ -group ((b) and  $B_c$  are as defined above), an  $A_9'-B_c$ -group ( $A_9'$  represents a substituent of the following  $A_7'$  group or  $A_8'$  group, and  $B_c$  is as defined above), a  $D_5-R_4-B_c$ -group ( $D_5$  represents a substituent of the following  $D_5$  group,  $R_4$  represents a C1-C10 alkylene group, and  $B_c$  is as defined above), a  $M_c-B_3-B_c$ -group ( $B_3$  represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and  $M_c$  and  $B_c$  are as defined above) or a  $M_c-B_c$ -group ( $M_c$  and  $B_c$  are as defined above);

(1) an  $A_7$  group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a  $R_2-B_1-R_4$ -group ( $R_2$  and  $B_1$  are as defined above, and

$R_4$  is as defined above), a  $D_4$ - $R_4$ -group ( $D_4$  represents a substituent of the following  $D_4$  group, and  $R_4$  is as defined above), a  $D_5$ - $R_4$ -group ( $D_5$  represents a substituent of the following  $D_5$  group, and  $R_4$  is as defined above), a  $D_1$ - $R_4$ -group ( $D_1$  represents a substituent of the following  $D_1$  group, and  $R_4$  is as defined above), a (b)- $R_4$ -group ((b) is as defined above, and  $R_4$  is as defined above), a (c)- $R_4$ -group ((c) is as defined above, and  $R_4$  is as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  represents a substituent of the following  $D_2$  group, and  $R_4$  is as defined above), a  $D_3$ - $R_4$ -group ( $D_3$  represents a substituent of the following  $D_3$  group, and  $R_4$  is as defined above), an  $A_4$ - $SO_2$ - $R_4$ -group ( $A_4$  represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a  $R_1R_1'$ -N-group ( $R_1$  and  $R_1'$  are as defined above), and  $R_4$  is as defined above) or an  $A_2$ -CO- $R_4$ -group ( $A_2$  represents a substituent of the following  $A_2$  group, and  $R_4$  is as defined above);

(2) an  $A_8$  group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;

(3) an  $A_{7'}$  group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a  $R_2$ - $B_1$ - $R_4'$ -group ( $R_2$  and  $B_1$  are as defined above, and  $R_4'$  represents a C2-C10 alkylene group), a  $D_4$ - $R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_1$ - $R_4'$ -group ( $D_1$  and  $R_4'$  are as defined above), a (b)- $R_4'$ -group ((b) and  $R_4'$  are as defined above), a (c)- $R_4'$ -group ((c) and  $R_4'$  are as defined above), a  $D_2$ - $R_4'$ -group ( $D_2$  and  $R_4'$  are as defined above), a  $D_3$ - $R_4'$ -group ( $D_3$  and  $R_4'$  are as defined above) or an  $A_2$ -CO- $R_4$ -group ( $A_2$  and  $R_4$  are as defined above);

(4) an  $A_8'$  group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;

(5) an A<sub>7</sub>' group: a C<sub>2</sub>-C<sub>10</sub> alkenyl group, a C<sub>3</sub>-C<sub>10</sub> alkenyl group substituted with a halogen atom, a C<sub>3</sub>-C<sub>10</sub> alkynyl group optionally substituted with a halogen atom, a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>'-group (R<sub>2</sub>, B<sub>1</sub> and R<sub>4</sub>' are as defined above), a D<sub>4</sub>-R<sub>4</sub>'-group (D<sub>4</sub> and R<sub>4</sub>' are as defined above), a D<sub>5</sub>-R<sub>4</sub>-group (D<sub>5</sub> and R<sub>4</sub> are as defined above), a D<sub>1</sub>-R<sub>4</sub>'-group (D<sub>1</sub> and R<sub>4</sub>' are as defined above), a (b)-R<sub>4</sub>'-group ((b) and R<sub>4</sub>' are as defined above), a (c)-R<sub>4</sub>'-group ((c) and R<sub>4</sub>' are as defined above), a D<sub>2</sub>-R<sub>4</sub>-group (D<sub>2</sub> and R<sub>4</sub> are as defined above), a NO<sub>2</sub>-R<sub>4</sub>-group (R<sub>4</sub> is as defined above) or an A<sub>2</sub>-CO-R<sub>4</sub>-group (A<sub>2</sub> and R<sub>4</sub> are as defined above);

(i) a D<sub>4</sub> group: a hydroxy group or an A<sub>1</sub>-O-group [A<sub>1</sub> represents a R<sub>3</sub>-(CHR<sub>0</sub>)<sub>m</sub>-(B<sub>2</sub>-B<sub>3</sub>)<sub>m'</sub>-group {R<sub>3</sub> represents a hydrogen atom, or a C<sub>1</sub>-C<sub>10</sub> alkyl group optionally substituted with a halogen atom or a R<sub>2</sub>-B<sub>1</sub>-group (R<sub>2</sub> and B<sub>1</sub> are as defined above), or a C<sub>2</sub>-C<sub>10</sub> alkenyl group, or a C<sub>2</sub>-C<sub>10</sub> alkynyl group, R<sub>0</sub> represents a hydrogen atom, a C<sub>1</sub>-C<sub>10</sub> alkyl group or a C<sub>2</sub>-C<sub>10</sub> haloalkyl group, m is as defined above, B<sub>2</sub> represents a single bond, an oxy group, a thio group or a -N((O)<sub>n</sub>R<sub>1</sub>')-group (R<sub>1</sub>' is as defined above, and n represents 0 or 1), B<sub>3</sub> is as defined above, m' represents 0 or 1 and, when B<sub>3</sub> is a sulfonyl group, then m is 0, and R<sub>3</sub> is not a hydrogen atom}];

(ii) a D<sub>5</sub> group: an O=C(R<sub>3</sub>)-group (R<sub>3</sub> is as defined above), an A<sub>1</sub>-(O)<sub>n</sub>-N=C(R<sub>3</sub>)-group (A<sub>1</sub>, n and R<sub>3</sub> are as defined above), a R<sub>1</sub>-B<sub>0</sub>-CO-R<sub>4</sub>-(O)<sub>n</sub>-N=C(R<sub>3</sub>)-group [R<sub>1</sub>, R<sub>4</sub>, n and R<sub>3</sub> are as defined above, and B<sub>0</sub> represents an oxy group, a thio group or a -N((O)<sub>m</sub>R<sub>1</sub>')-group (R<sub>1</sub>' and m are as defined above)], a D<sub>2</sub>-R<sub>4</sub>-(O)<sub>n</sub>-N=C(R<sub>3</sub>)-group (D<sub>2</sub>, R<sub>4</sub>, n and R<sub>3</sub> are as defined above) or a R<sub>1</sub>A<sub>1</sub>N-N=C(R<sub>3</sub>)-group (R<sub>1</sub>, A<sub>1</sub> and R<sub>3</sub> are as defined above);

(iii) a  $D_1$  group: a  $(R_1-(O)_k-)A_1N-(O)_{k'}$ -group ( $R_1$  and  $A_1$  are as defined above, and  $k$  and  $k'$  are the same or different, and represent 0 or 1);

(iv) a  $D_2$  group: a cyano group, a  $R_1R_1'NC(=N-(O)_n-A_1)$ -group ( $R_1$ ,  $R_1'$ ,  $n$  and  $A_1$  are as defined above), an  $A_1N=C(-OR_2)$ -group ( $A_1$  and  $R_2$  are as defined above) or a  $NH_2-CS$ -group;

(v) a  $D_3$  group: a nitro group or a  $R_1OSO_2$ -group ( $R_1$  is as defined above);

(vi) an  $A_2$  group:

1) an  $A_3-B_4$ -group

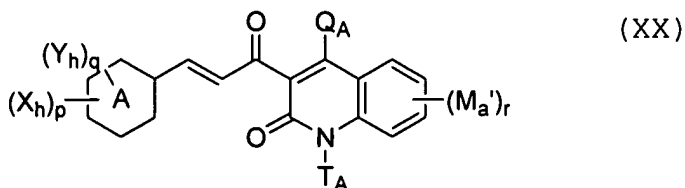
[ $A_3$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkenyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a  $R_a-(R_4)_m$ -group ( $R_a$  represents a phenyl group, a pyridyl group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and  $R_4$  and  $m$  are as defined above), or a C1-C10 alkyl group substituted with a (b)- $R_4$ -group ((b) and  $R_4$  are as defined above), a (c)- $R_4$ -group ((c) and  $R_4$  are as defined above), a  $R_2-B_1-R_4$ -group ( $R_2$ ,  $B_1$  and  $R_4$  are as defined above), a  $D_4-R_4$ -group ( $D_4$  and  $R_4$  are as defined above), a  $D_5$ -group ( $D_5$  is as defined above), a  $D_1-R_4$ -group ( $D_1$  and  $R_4$  are as defined above), a  $D_2$ -group ( $D_2$  is as defined above), a  $D_3-R_4$ -group ( $D_3$  and  $R_4$  are as defined above) or an  $A_4-SO_2-R_4$ -group ( $A_4$  is as defined above, and  $R_4$  is as defined above),

$B_4$  represents an oxy group, a thio group or a  $-N((O)_mR_1)$ -group ( $R_1$  and  $m$  are as defined above), provided that when  $B_4$  is a thio group, then  $A_3$  is not a hydrogen atom];

- 2) a  $R_1-B_4-CO-R_4-B_4'$ -group ( $R_1$ ,  $B_4$  and  $R_4$  are as defined above,  $B_4'$  is the same as or different from  $B_4$ , and has the same meaning as that of  $B_4$ , provided that when  $B_4$  is a thio group, then  $R_2$  is not a hydrogen atom) or a  $D_2-R_4-B_4$ -group ( $D_2$ ,  $R_4$  and  $B_4$  are as defined above);
  - 3) a  $R_2-SO_2-NR_1$ -group ( $R_2$  is as defined above, provided that a hydrogen atom is excluded, and  $R_1$  is as defined above);
  - 4) a (b)-group ((b) is as defined above);
  - 5) a (c)-group ((c) is as defined above) or
  - 6) a  $R_1A_1N-NR_1'$ -group ( $R_1$ ,  $A_1$  and  $R_1'$  are as defined above);
- IV.  $T_A$  represents a hydrogen atom, an  $A_9'$ -group ( $A_9'$  is as defined above), a  $D_5-R_4$ -group ( $D_5$  and  $R_4$  are as defined above) or a  $M_c$ -group ( $M_c$  is as defined above);
- V.  $M_a'$  is the same as or different from  $M_a$ , and has the same meaning as that of  $M_a$ , and  $r$  represents 0, 1, 2, 3 or 4; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range]; and an inert carrier;

**20. (Original)** A 2(1H)-pyridinone compound represented by the formula (XX):





[wherein

- I. A represents a benzene ring or a pyridine ring;
- II. In  $(X_h)_p$ ,  $X_h$  represents a hydroxy group, a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy carbonyl group, a  $(R')_2N$ -group ( $R'$  represents a C1-C10 alkyl group), a nitro group or a C1-C10 alkoxy group,  $p$  represents 0, 1, 2, 3 or 4 and, when  $p$  is 2 or more,  $X_h$ 's are the same or different, provided that when  $p$  is 2 or more, and in case that  $X_h$  is selected from a hydroxy group, a halogen atom, a C1-C10 alkyl group and a C1-C10 alkoxy group, then  $X_h$ 's do not represent the same group or atom at the same time;
- III. In  $(Y_h)_q$ ,  $Y_h$  is a substituent on a carbon atom, and represents a substituent of the following  $X_7$  group or  $Y_7$  group,  $q$  represents 0, 1, 2, 3, 4 or 5, when  $q$  is 2 or more,  $Y_h$ 's are the same or different and, when  $q$  is 2 or more, the adjacent two same or different  $Y_h$ 's constitute a group of a  $Z_7$  group, and may be fused with an A ring;

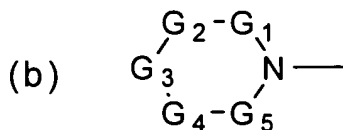
(1) a  $X_7$  group:

a  $M_a$ -group [ $M_a$  represents a  $R_b$ -group ( $R_b$  represents a C1-C10 alkyl group optionally substituted with a halogen atom), a halogen atom, a nitro group, a cyano group, a hydroxy group, a  $R_c-B_a-R_d$ -group ( $R_c$  represents a C1-C10 alkyl group optionally substituted with a halogen atom,  $B_a$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group, and  $R_d$  represents a single bond or a C1-C10 alkylene group), a  $HOR_d$ -group ( $R_d$  is as defined above), a  $R_e-CO-R_d$ -group ( $R_e$  represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, and  $R_d$  is as defined above), a  $R_e-CO-O-R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $R_eO-CO-R_d$ -group ( $R_e$  and  $R_d$  are as defined above), a  $HO-CO-CH=CH$ -group, a  $R_eR_{e'}N-R_d$ -group ( $R_e$  and  $R_{e'}$  are the same or different,  $R_e$  is as defined above,  $R_{e'}$  has

the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_e$ -CO-N $R_e'$ - $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_b$ O-CO-N( $R_e$ )- $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'$ N-CO- $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a  $R_eR_e'$ N-CO-N $R_e''$ - $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_e''$  are the same or different,  $R_e$  and  $R_e'$  are as defined above,  $R_e''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_eR_e''$ N-C(=N $R_e''$ )-N $R_e'''$ - $R_d$ -group ( $R_e$ ,  $R_e'$ ,  $R_e''$  and  $R_e'''$  are the same or different,  $R_e$ ,  $R_e'$  and  $R_e''$  are as defined above,  $R_e'''$  has the same meaning as that of  $R_e$ , and  $R_d$  is as defined above), a  $R_b$ -SO<sub>2</sub>-N $R_e$ - $R_d$ -group ( $R_b$ ,  $R_e$  and  $R_d$  are as defined above), a  $R_eR_e'$ N-SO<sub>2</sub>- $R_d$ -group ( $R_e$ ,  $R_e'$  and  $R_d$  are as defined above), a C2-C10 alkenyl group or a C2-C10 alkynyl group], provided that when A represents a benzene ring, then a  $X_h$ -group ( $X_h$  is as defined above) is excluded;

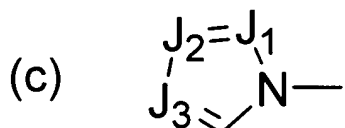
(2) a  $Y_7$  group:

a  $M_b$ - $R_d$ -group [ $M_b$  represents a  $M_c$ -group ( $M_c$  represents a  $M_d$ - $R_d'$ -group ( $M_d$  represents a phenyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a pyridyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or a naphthyl group optionally substituted with a  $M_a$ -group ( $M_a$  is as defined above), or

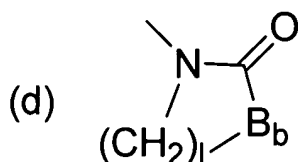


a (b)-group {in (b),  $G_1$ ,  $G_2$ ,  $G_4$  and  $G_5$  represent a methylene group which is connected to an adjacent atom with a single bond, and may be substituted with a methyl group, or a methine group which is connected to an adjacent atom with a double bond, and may be substituted with a methyl group, and  $G_3$  represents a single bond, or a double bond, or a C1-C10 alkylene group optionally substituted with a methyl

group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 alkyl group substituted with a halogen atom or a  $R_2-B_1$ -group ( $R_2$  represents a C1-C10 alkyl group, a C3-C10 alkenyl group or a C3-C10 alkynyl group, and  $B_1$  represents an oxy group, a thio group, a sulfinyl group or a sulfonyl group), or a C3-C10 alkenyl group, or a C3-C10 alkynyl group}), or a C2-C10 alkenylene group optionally substituted with a methyl group, an oxy group, a thio group, a sulfinyl group, a sulfonyl group or a  $-NR_1$ -group ( $R_1$  is as defined above)),

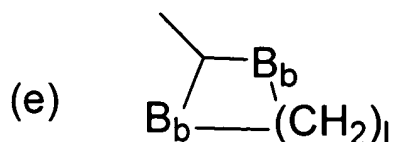


a (c)-group (in (c),  $J_1$ ,  $J_2$  and  $J_3$  are the same or different, and represent a methine group optionally substituted with a methyl group, or a nitrogen atom),



a (d)-group ( $l$  is 2, 3 or 4, and  $B_b$  represents an oxy group or a thio group)

or



an (e)-group ( $l$  and  $B_b$  are as defined above),  $R_d'$  is the same as or different from  $R_d$ , and has the same meaning as that of  $R_d$ }}, a  $M_c-B_a$ -group ( $M_c$  and  $B_a$  are as defined above), a  $M_c-CO$ -group ( $M_c$  is as defined above), a  $M_c-CO-O$ -group ( $M_c$  is as defined above), a  $M_cO-CO$ -group ( $M_c$  is as defined above), a  $M_cR_eN$ -group ( $M_c$  and  $R_e$  are as defined above), a  $M_c-$

CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>O-CO-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), a M<sub>c</sub>R<sub>e</sub>N-CO-NR<sub>e</sub>'-group (M<sub>c</sub>, R<sub>e</sub> and R<sub>e</sub>' are as defined above), a M<sub>c</sub>R<sub>e</sub>N-C(=NR<sub>e</sub>')-NR<sub>e</sub>''-group (M<sub>c</sub>, R<sub>e</sub>, R<sub>e</sub>' and R<sub>e</sub>'' are as defined above), a M<sub>c</sub>-SO<sub>2</sub>-NR<sub>e</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above) or a M<sub>c</sub>R<sub>e</sub>N-SO<sub>2</sub>-group (M<sub>c</sub> and R<sub>e</sub> are as defined above), and R<sub>d</sub> is as defined above];

(3) a Z<sub>7</sub> group:

a -N=C(Y<sub>a</sub>)-Y<sub>a</sub>'-group (Y<sub>a</sub> represents a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom, or a C1-C10 alkoxy group, and Y<sub>a</sub>' represents an oxy group, or a thio group, or an imino group optionally substituted with a C1-C10 alkyl group), a -Y<sub>b</sub>-Y<sub>b</sub>'-Y<sub>b</sub>''-group (Y<sub>b</sub> and Y<sub>b</sub>'' are the same or different, and represent a methylene group, or an oxy group, or a thio group, or a sulfinyl group, or an imino group optionally substituted with a C1-C10 alkyl group, and Y<sub>b</sub>' represents a C1-C4 alkylene group optionally substituted with a halogen atom or a C1-C4 alkylene group optionally having an oxo group) or a -Y<sub>c</sub>-O-Y<sub>c</sub>'-O-group (Y<sub>c</sub> and Y<sub>c</sub>' are the same or different, or a C1-C10 alkylene group), provided that when p is 0, then Y<sub>h</sub> does not fused with an A ring to form a benzo[1,3]dioxol ring;

IV. Q<sub>A</sub> represents a hydroxy group, a (b)-group ((b) is as defined above), an A<sub>9</sub>-B<sub>6</sub>-B<sub>c</sub>-group [A<sub>9</sub> represents a substituent of the following A<sub>7</sub> group or A<sub>8</sub> group, B<sub>6</sub> represents a carbonyl group or a thiocarbonyl group, and B<sub>c</sub> represents an oxy group or a -N((O)<sub>m</sub>R<sub>1</sub>-group (m represents 0 or 1, and R<sub>1</sub> is as defined above), provided that when A<sub>9</sub> is a hydrogen atom, then B<sub>c</sub> is not a sulfonyl group], an A<sub>7</sub>''-SO<sub>2</sub>-B<sub>c</sub>-group (A<sub>7</sub>'' represents a substituent of the following A<sub>7</sub>'' group, and B<sub>c</sub> is as defined above), an A<sub>8</sub>-SO<sub>2</sub>-B<sub>c</sub>-group

(A<sub>8</sub> represents a substituent of the following A<sub>8</sub> group, and B<sub>c</sub> is as defined above, provided that A<sub>8</sub> is not a hydrogen atom), a R<sub>1</sub>R<sub>1</sub>'N-SO<sub>2</sub>-B<sub>c</sub>-group (R<sub>1</sub> is as defined above, R<sub>1</sub>' is the same as or different from R<sub>1</sub>, and has the same meaning as that of R<sub>1</sub>, and B<sub>c</sub> is as defined above), a (b)-SO<sub>2</sub>-B<sub>c</sub>-group ((b) and B<sub>c</sub> are as defined above), an A<sub>9</sub>'-B<sub>c</sub>-group (A<sub>9</sub>' represents a substituent of the following A<sub>7</sub>' group or A<sub>8</sub>' group, and B<sub>c</sub> is as defined above), a D<sub>5</sub>-R<sub>4</sub>-B<sub>c</sub>-group (D<sub>5</sub> represents a substituent of the following D<sub>5</sub> group, R<sub>4</sub> represents a C1-C10 alkylene group, and B<sub>c</sub> is as defined above), a M<sub>c</sub>-B<sub>3</sub>-B<sub>c</sub>-group (B<sub>3</sub> represents a carbonyl group, a thiocarbonyl group or a sulfonyl group, and M<sub>c</sub> and B<sub>c</sub> are as defined above) or a M<sub>c</sub>-B<sub>c</sub>-group (M<sub>c</sub> and B<sub>c</sub> are as defined above);

(1) an A<sub>7</sub> group:

a C2-C10 alkenyl group optionally substituted with a halogen atom, a C2-C10 alkynyl group, a C3-C10 haloalkynyl group, a R<sub>2</sub>-B<sub>1</sub>-R<sub>4</sub>-group (R<sub>2</sub> and B<sub>1</sub> are as defined above, and R<sub>4</sub> is as defined above), a D<sub>4</sub>-R<sub>4</sub>-group (D<sub>4</sub> represents a substituent of the following D<sub>4</sub> group, and R<sub>4</sub> is as defined above), a D<sub>5</sub>-R<sub>4</sub>-group (D<sub>5</sub> represents a substituent of the following D<sub>5</sub> group, and R<sub>4</sub> is as defined above), a D<sub>1</sub>-R<sub>4</sub>-group {D<sub>1</sub> represents a substituent of the following D<sub>1</sub> group, and R<sub>4</sub> is as defined above}, a (b)-R<sub>4</sub>-group ((b) is as defined above, and R<sub>4</sub> is as defined above), a (c)-R<sub>4</sub>-group ((c) is as defined above, and R<sub>4</sub> is as defined above), a D<sub>2</sub>-R<sub>4</sub>-group {D<sub>2</sub> represents a substituent of the following D<sub>2</sub> group, and R<sub>4</sub> is as defined above}, a D<sub>3</sub>-R<sub>4</sub>-group {D<sub>3</sub> represents a substituent of the following D<sub>3</sub> group, and R<sub>4</sub> is as defined above}, an A<sub>4</sub>-SO<sub>2</sub>-R<sub>4</sub>-group {A<sub>4</sub> represents a (b)-group ((b) is as defined above), a (c)-group ((c) is as defined above) or a R<sub>1</sub>R<sub>1</sub>'-N-group (R<sub>1</sub> and R<sub>1</sub>' are as defined

above), and  $R_4$  is as defined above} or an  $A_2$ -CO $_2$ - $R_4$ -group ( $A_2$  represents a substituent of the following  $A_2$  group, and  $R_4$  is as defined above);

(2) an  $A_8$  group: a hydrogen atom, or a C1-C10 alkyl group optionally substituted with a halogen atom;

(3) an  $A_{7'}$  group: a C3-C10 alkenyl group optionally substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a  $R_2$ - $B_1$ - $R_4'$ -group ( $R_2$  and  $B_1$  are as defined above, and  $R_4'$  represents a C2-C10 alkylene group), a  $D_4$ - $R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_1$ - $R_4'$ -group ( $D_1$  and  $R_4'$  are as defined above), a (b)- $R_4'$ -group ((b) and  $R_4'$  are as defined above), a (c)- $R_4'$ -group ((c) and  $R_4'$  are as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  and  $R_4$  are as defined above), a  $D_3$ - $R_4'$ -group ( $D_3$  and  $R_4'$  are as defined above) or an  $A_2$ -CO- $R_4$ -group ( $A_2$  and  $R_4$  are as defined above);

(4) an  $A_8'$  group: a C1-C10 alkyl group or a C2-C10 haloalkyl group;

(5) an  $A_{7''}$  group: a C2-C10 alkenyl group, a C3-C10 alkenyl group substituted with a halogen atom, a C3-C10 alkynyl group optionally substituted with a halogen atom, a  $R_2$ - $B_1$ - $R_4'$ -group ( $R_2$ ,  $B_1$  and  $R_4'$  are as defined above), a  $D_4$ - $R_4'$ -group ( $D_4$  and  $R_4'$  are as defined above), a  $D_5$ - $R_4$ -group ( $D_5$  and  $R_4$  are as defined above), a  $D_1$ - $R_4'$ -group ( $D_1$  and  $R_4'$  are as defined above), a (b)- $R_4'$ -group ((b) and  $R_4'$  are as defined above), a (c)- $R_4'$ -group ((c) and  $R_4'$  are as defined above), a  $D_2$ - $R_4$ -group ( $D_2$  and  $R_4$  are as defined above), a NO $_2$ - $R_4$ -group ( $R_4$  is as defined above) or an  $A_2$ -CO- $R_4$ -group ( $A_2$  and  $R_4$  are as defined above);

(i) a  $D_4$  group: a hydroxy group or an  $A_1$ -O-group [ $A_1$  represents a  $R_3$ -(CHR $_0$ ) $_m$ -(B $_2$ -B $_3$ ) $_m'$ -group ( $R_3$  represents a hydrogen atom, or a C1-C10 alkyl group optionally

substituted with a halogen atom or a  $R_2-B_1$ -group ( $R_2$  and  $B_1$  are as defined above), or a C2-C10 alkenyl group, or a C2-C10 alkynyl group,  $R_0$  represents a hydrogen atom, a C1-C10 alkyl group or a C2-C10 haloalkyl group,  $m$  is as defined above,  $B_2$  represents a single bond, an oxy group, a thio group or a  $-N((O)_nR_1')$ -group ( $R_1'$  is as defined above, and  $n$  represents 0 or 1),  $B_3$  is as defined above,  $m'$  represents 0 or 1 and, when  $B_3$  is a sulfonyl group, then  $m$  is 0, and  $R_3$  is not a hydrogen atom}];

(ii) a  $D_5$  group: an  $O=C(R_3)$ -group ( $R_3$  is as defined above), an  $A_1-(O)_n-N=C(R_3)$ -group ( $A_1$ ,  $N$  and  $R_3$  are as defined above), a  $R_1-B_0-CO-R_4-(O)_n-N=C(R_3)$ -group [ $R_1$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above, and  $B_0$  represents an oxy group, a thio group or a  $-N((O)_mR_1')$ -group ( $R_1'$  and  $m$  are as defined above)], a  $D_2-R_4-(O)_n-N=C(R_3)$ -group ( $D_2$ ,  $R_4$ ,  $n$  and  $R_3$  are as defined above) or a  $R_1A_1N-N=C(R_3)$ -group ( $R_1$ ,  $A_1$  and  $R_3$  are as defined above);

(iii) a  $D_1$  group: a  $(R_1-O)_k-A_1N-(O)_{k'}$ -group ( $R_1$  and  $A_1$  are as defined above, and  $k$  and  $k'$  are the same or different, and represent 0 or 1);

(iv) a  $D_2$  group: a cyano group, a  $R_1R_1'NC(=N-(O)_n-A_1)$ -group ( $R_1$ ,  $R_1'$ ,  $N$  and  $A_1$  are as defined above), an  $A_1N=C(-OR_2)$ -group ( $A_1$  and  $R_2$  are as defined above) or a  $NH_2-CS$ -group;

(v) a  $D_3$  group: a nitro group or a  $R_1OSO_2$ -group ( $R_1$  is as defined above);

(vi) an  $A_2$  group:

1) an  $A_3-B_4$ -group

[ $A_3$  represents a hydrogen atom, or a C1-C10 alkyl group, or a C2-C10 haloalkyl group, or a C2-C10 alkynyl group optionally substituted with a halogen atom, or a C3-C10 alkynyl group optionally substituted with a halogen atom, or a  $R_a-(R_4)_m$ -group ( $R_a$  represents a phenyl group, a pyridyl

group, a furyl group or a thienyl group, optionally substituted with a halogen atom, a C1-C10 alkyl group, a C1-C10 alkoxy group or a nitro group, and  $R_4$  and  $m$  are as defined above), or a C1-C10 alkyl group substituted with a (b)- $R_4$ -group ((b) and  $R_4$  are as defined above), a (c)- $R_4$ -group ((c) and  $R_4$  are as defined above), a  $R_2$ - $B_1$ - $R_4$ -group ( $R_2$ ,  $B_1$  and  $R_4$  are as defined above), a  $D_4$ - $R_4$ -group ( $D_4$  and  $R_4$  are as defined above), a  $D_5$ -group ( $D_5$  is as defined above), a  $D_1$ - $R_4$ -group ( $D_1$  and  $R_4$  are as defined above), a  $D_2$ -group ( $D_2$  is as defined above), a  $D_3$ - $R_4$ -group ( $D_3$  and  $R_4$  are as defined above) or an  $A_4$ -SO<sub>2</sub>- $R_4$ -group ( $A_4$  is as defined above, and  $R_4$  is as defined above),

$B_4$  represents an oxy group, a thio group or a -N((O) <sub>$m$</sub>  $R_1$ )-group ( $R_1$  and  $m$  are as defined above), provide that when  $A_4$  is a thio group, then  $A_3$  is not a hydrogen atom];

2) a  $R_1$ - $B_4$ -CO- $R_4$ - $B_4'$ -group ( $R_1$ ,  $B_4$  and  $R_4$  are as defined above,  $B_4'$  is the same as or different from  $B_4$ , and has the same meaning as  $B_4$ , provided that when  $B_4$  is a thio group, then  $R_2$  is not a hydrogen atom) or a  $D_2$ - $R_4$ - $B_4$ -group ( $D_2$ ,  $R_4$  and  $B_4$  are as defined above);

3) a  $R_2$ -SO<sub>2</sub>-NR<sub>1</sub>-group ( $R_2$  is as defined above, provided that a hydrogen atom is excluded, and  $R_1$  is as defined above);

4) a (b)-group ((b) is as defined above);

5) a (c)-group ((c) is as defined above) or

6) a  $R_1A_1N$ -NR<sub>1</sub>'-group ( $R_1$ ,  $A_1$  and  $R_1'$  are as defined above);

V.  $T_A$  represents a hydrogen atom, an  $A_9'$ -group ( $A_9'$  is as defined above), a  $D_5$ - $R_4$ -group ( $D_5$  and  $R_4$  are as defined above) or a  $M_c$ -group ( $M_c$  is as defined above);

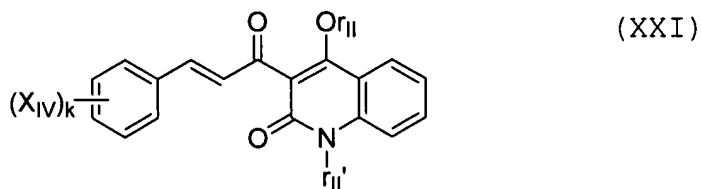
VI.  $M_a'$  is the same as or different from  $M_a$ , and has the same meaning as that of  $M_a$ , and  $r$  represents 0, 1, 2, 3 or 4, provided that when an A ring is a benzene ring, then  $q$



is not 0 and, when an A ring is a benzene ring or a pyridine ring, then p and q are not 0 at the same time, in either case; and

the "as defined above" in the same symbol between a plurality of substituents indicates that the plurality of substituents independently represent the same meaning as that described above and, between the plurality of substituents, a selection range of selected substituents is the same, while the selected substituents may be the same or different as far as they are selected in the range];

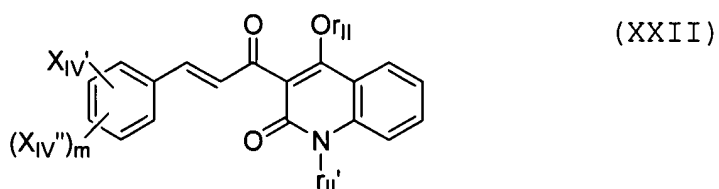
**21. (Original)** A I type collagen gene transcription suppressing composition, which comprises a 2(1H)-quinolinone compound represented by the formula (XXI):



[wherein  $X_{IV}$  represents a hydrogen atom, or a hydroxy group, or a halogen atom, or a C1-C4 alkyl group optionally substituted with a halogen atom or a C1-C4 alkoxy group, or a C2-C4 alkenyl group, or a C2-C4 alkynyl group, or a C1-C4 alkoxy group, or a  $R_I-S(O)_l$ -group ( $R_I$  represents a C1-C4 alkyl group, and  $l$  represents an integer of 0 to 2), or a nitro group, or a cyano group, or a carboxy group, or a C1-C4 alkoxycarbonyl group, or a  $(R_I)_2N$ -group ( $R_I$  is as defined above), or a  $R_I-CO-NH$ -group ( $R_I$  is as defined above), or a  $R_I-O-CO-NH$ -group ( $R_I$  is as defined above), or a  $R_I NH-CO-NH$ -group ( $R_I$  is as defined above), or a  $(R_I')_2N-CO$ -group ( $R_I'$

represents a hydrogen atom or a C1-C4 alkyl group), or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom), k represents an integer of 1 to 4 and, when k is an integer of 2 to 4,  $X_{IV}$ 's may be different, and  $r_{II}$  and  $r_{II}'$  are the same or different, and represent a hydrogen atom or a C1-C4 alkyl group];  
and an inert carrier;

**22. (Original)** A 2(1H)-quinolinone compound represented by the formula (XXII):



[wherein  $X_{IV}'$  represents a C2-C4 alkyl group, or a C1-C4 alkyl group substituted with a halogen atom or a C1-C4 alkoxy group, or a C2-C4 alkenyl group, or a C2-C4 alkynyl group, or a C2-C4 alkoxy group, or a  $R_I-S(O)_1$ -group ( $R_I$  represents a C1-C4 alkyl group, and 1 represents an integer of 0 to 2), or a cyano group, or a carboxy group, or a C2-C4 alkoxy carbonyl group, or a  $(R_{II})_2N$ -group ( $R_{II}$  represents a C2-C4 alkyl group), or a  $R_I-CO-NH$ -group ( $R_I$  is as defined above), or a  $R_I O-CO-NH$ -group ( $R_I$  is as defined above), or a  $R_I NH-CO-NH$ -group ( $R_I$  is as defined above), or a  $(R_I')_2N-CO$ -group ( $R_I'$  represents a hydrogen atom or a C1-C4 alkyl group), or a RB-group (B represents an oxygen atom or a sulfur atom, and R represents a C1-C4 alkyl group substituted with a halogen atom),  $X_{IV}''$  represents a hydrogen atom, a halogen atom, a C1-C4 alkyl group or a C1-C4 alkoxy

group, m represents 1 or 2 and, when m is 2, X<sub>IV</sub>'s may be different, and r<sub>II</sub> and r<sub>II</sub>' are the same or different, and represent a hydrogen atom or a C1-C4alkyl group];

**23-24. (Cancelled)**

**25. (Currently amended)** A composition for improving tissue fibrosis, which comprises a compound according to ~~claims 5, 6, 8, 9, 11, 12, 13, 14, 16, 18, 20 or 22~~ claim 5, and an inert carrier;

**26. (Currently amended)** A method for improving tissue fibrosis, which comprises administering an effective amount of a compound according to ~~claims 5, 6, 8, 9, 11, 12, 13, 14, 16, 18, 20 or 22~~ claim 5 to a mammal in need thereof;

**27. (Cancelled)**

**28. (Currently amended)** A composition for suppressing the activity of TGF- $\beta$ , which comprises a compound according to ~~claims 5, 6, 8, 9, 11, 12, 13, 14, 16, 18, 20 or 22~~ claim 5, and an inert carrier;

**29. (Cancelled)**

**30. (Currently amended)** A composition for hair growth which comprises a compound according to ~~claims 5, 6, 8, 9, 11, 12, 13, 14, 16, 18, 20 or 22~~ claim 5, and an inert carrier;

**31. (Currently amended)** A method for growing hair, which comprises administering an effective amount of a

compound according to ~~claims 5, 6, 8, 9, 11, 12, 13, 14, 16, 18, 20 or 22~~ claim 5 to a mammal in need thereof;

**32-33. (Cancelled)**

**34. (Currently amended)** A composition for improving tissue fibrosis, which comprises a compound according to ~~claims 1, 2, 3, 4, 7, 10, 15, 17, 19 or 21~~ claim 1, and an inert carrier;

**35. (Currently amended)** A method for improving tissue fibrosis, which comprises administering an effective amount of a compound according to ~~claims 1, 2, 3, 4, 7, 10, 15, 17, 19 or 21~~ claim 1 to a mammal in need thereof;

**36. (Cancelled)**

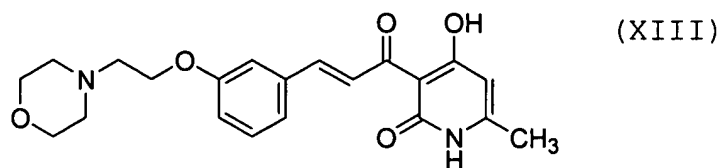
**37. (Currently amended)** A composition for suppressing the activity of TGF- $\beta$ , which comprises a compound according to ~~claims 1, 2, 3, 4, 7, 10, 15, 17, 19 or 21~~ claim 1, and an inert carrier;

**38. (Cancelled)**

**39. (Currently amended)** A composition for hair growth which comprises a compound according to ~~claims 1, 2, 3, 4, 7, 10, 15, 17, 19 or 21~~ claim 1, and an inert carrier;

**40. (Currently amended)** A method for growing hair, which comprises administering an effective amount of a compound according to ~~claims 1, 2, 3, 4, 7, 10, 15, 17, 19 or 21~~ claim 1 to a mammal in need thereof;

**41. (Original)** A 2(1H)-pyridinone compound represented by the formula (XXIII):



**42. (Original)** A 2(1H)-pyridinone compound represented by the formula (XXIV):

